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General Editor
Dr. B. S. Kulkarni

PROBLEM OF SOUTH INDIAN MEGALITHS

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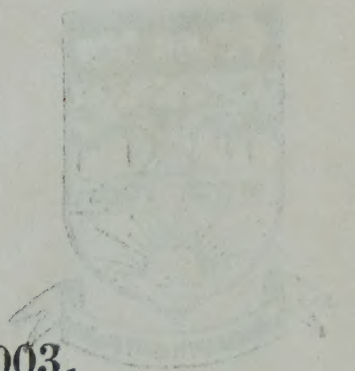


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FOREWORD

As a part of the many-sided research activities, the Kannada Research Institute arranges research lectures by eminent scholars, in the special fields of Indology and Archaeology every year. The present book is the fourth in such New Series of Research lectures. It consists of three lectures given by Dr. S. B. Deo, Professor and Head, Department of Ancient Indian History, Culture & Archaeology, Nagpur University, on 18th, 19th & 20th January, 1973 in our Institute.

These special lectures are on one of the most knotty problems of Prehistoric Indian Archaeology, namely, Problem of South Indian Megaliths. Though megaliths are found in large numbers and in numerous sites all over South India and the Deccan and some aspects of the material culture of the Megalith-builders are known particularly from the excellent field studies carried out systematically by some well-known archaeologists, such as Mortimer Wheeler, V. D. Krishnaswami, etc., there are yet many unsolved problems regarding the authors of the megaliths, the origin and date of megalithism etc. Investigations by young scholars into these various problems are continued. It is against this background of the study of the problem that the esteemed scholar who has been working on it for the last so many years by carrying out surveys in the eastern part of Maharashtra and excavations of megaliths in Takalghat, Khapa, etc., has given succinctly a critical and an up-to-date co-ordinated account of the work done so far on this problem. I am sure that this book will be immensely useful for those who are working on the problem and interesting to others as well. The Kannada Research Institute has been carrying out archaeological surveys,

too, and has brought to light a few but very important megalithic sites such as those at Terdal, Hallur, etc. I am therefore extremely thankful to Dr. S. B. Deo for having accepted our invitation to deliver these lectures and for having given the manuscript complete in all respects, shortly after the lectures, for publication.

My colleague Dr. A. Sundara shouldered the responsibility of seeing the book through the press, besides correcting the proofs. Shri R. S. Desai Artist, has prepared the cover design and checked the block proofs and their arrangements in the book. Dr. Leela Shantakumari has prepared the index and corrected the proofs. My sincere thanks are due to them.

I should also express my sincere thanks to the Members of the Department of Ancient Indian History & Epigraphy, for their active co-operation in the activities of the Institute.

The Karnatak University Press has done the printing work within a very short time and very neatly. I am immensely thankful to the Asstt. Director and his colleagues of the Press. I am also greateful to the University authorities for their encouragement throughout our work.

20th December 1973
Kannada Research Institute,
Karnatak University,
Dharwar

B. S. Kulkarni
Director

ACKNOWLEDGEMENT

After having excavated the stone circle sites of Takalghat, Khapa and Mahurjhari, it was thought proper to take a review of the Megalithic data in South India. The invitation to deliver special lectures at the Kannada Research Institute, Dharwar, was, therefore, a welcome opportunity in this direction.

I am, therefore, deeply beholden to Dr. B. S. Kulkarni Director, Kannada Research Institute, for inviting me to deliver three special lectures at the Institute.

I deem it a great favour that the Vice-Chancellor of the Karnatak University, Dr. A. S. Adke, found time to preside over the lectures inspite of his multifarious engagements.

In the preparation of these lectures I received all help from my colleague, Dr. A. P. Jamkhedkar and my technical staff Sarvashri P. S. Joshi, S. K. Jagatap and S. K. Pande.

Earlier scholars who have worked in this field, of course, have left me under a debt of gratitude and I have drawn freely on their published data.

Nagpur,
1st January 1973

S. B. Deo

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MEGALITHIC SITES
OF
THE DECCAN & SOUTH INDIA
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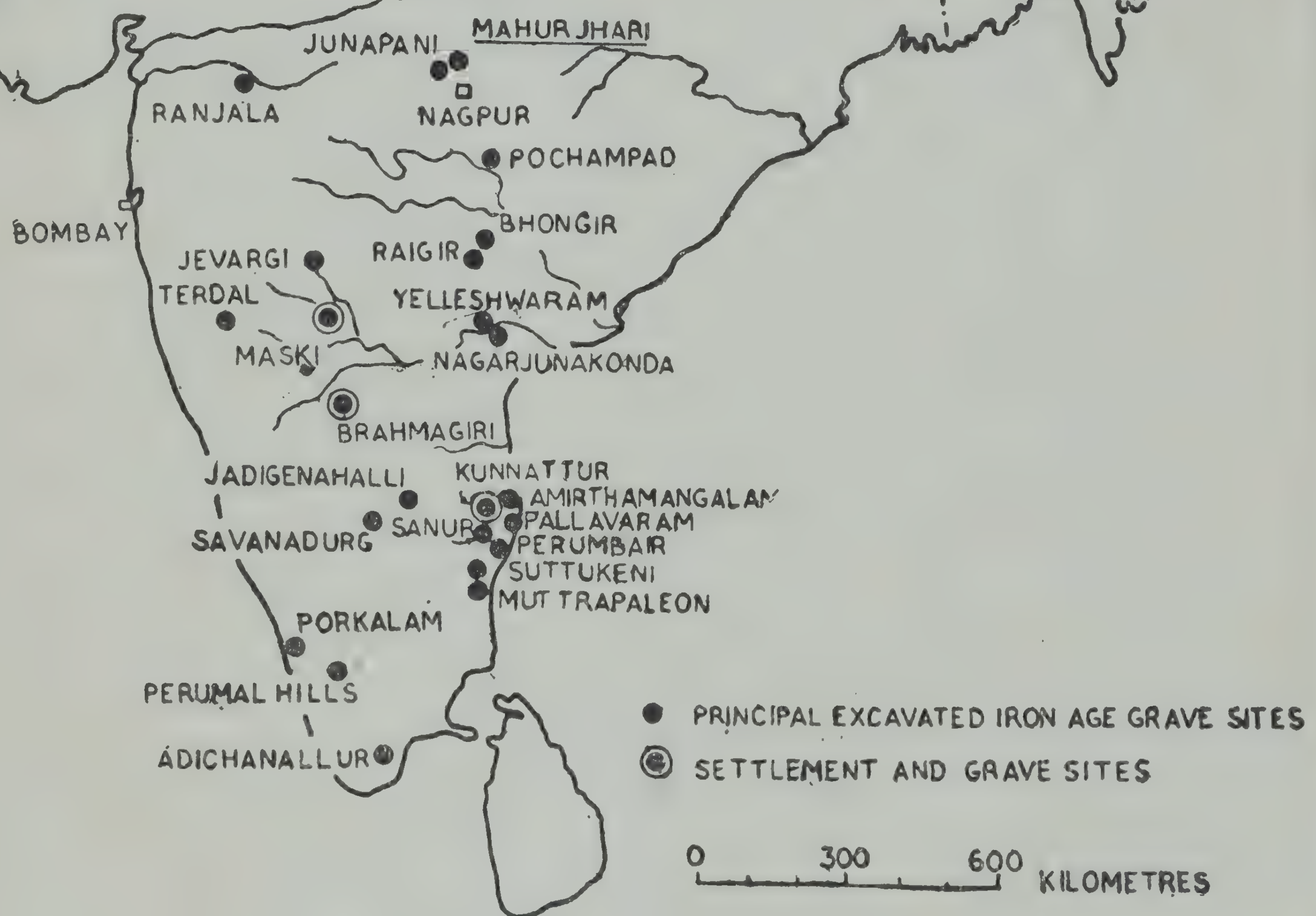


Fig. 1

LECTURE: I

I

The Background of the Problem

Previous Work

It will surprise many that exactly a hundred and fifty years ago megaliths in India attracted the attention of persons iteerested in the field of archaeological investigations. It was in 1823 that *Babington* published his "*Descriptions of the Pandoo Coolies of Malabar*" in the Transactions of the Literary Society of Bombay.[1] The name 'Pandoo Coolies' was current locally in Malabar designating the megalithic tombs. Inspite of this early attention, however, the initial attempts at understanding the mystery of the megaliths were sporadic. Megaliths no doubt attracted the attention of the foreigners, especially the British, who had come to India as part of the British administration.

Inspite of their interest in the antiquarian remains of India resulting in the publication of research papers and accounts, this survey of the work done pertaining to the

South Indian megaliths is proposed to be brief indicating only the major landmarks. About forty years after *Babington's* description of megaliths in Malabar, *Meadows Taylor* published his observations pertaining to the 'Distri bution of cairns, cromlechs, kistvaens and other Celtic, Druidical and Scythian monuments in the Dekhan' in the Transactions of the Royal Irish Academy.[2] However, the first comperehensive account came out only in 1872, when James *Fergusson* brought out "*Rude Stone Monuments in all countries; Their Age and Uses.*" This remarkable account is noteworthy for its sweep and also for the details regarding South Indian megaliths.

However, a new consciousness in the correlation of the megaliths with some of the customs and practices of indigenous tribes can be first detected in "*An Account of the Primitive Tribes and Monuments of the Nilgiris*" published by J. W. *Breeks* who was the commissioner of that region. As against the earlier attempts to trace the megaliths to the Celtic, the Druidic and Scythian ancestry, *Breeks* was the first to suggest the megalithic bias in the customs and the equipment of the tribes residing in the Nilgiris.

The history of the excavations of these megalithic monuments also is about a century old. Different officers and scholars undertook excavations of the megalithic remains separated by long distances. For instance, Dr. *Jagor* of Berlin excavated the classic site of Adichanallur in the Tinnevelly district, and in 1879 *Rivett Carnac* tapped the site of Junapani near Nagpur in Maharashtra. During all these years, the work of exploration also gained momentum which resulted in the publication of "*List of Antiquarian Remains in the Presidency of Madras*" by

Sewell in 1882. The Madras Museum which had become the store-house of the explored and excavated antiquities in the 19th century was opened to world of scholars by the publication of a catalogue of antiquities by Robert Bruce *Foot*. *Foot* not only catalogued the prehistoric antiquities, but also took stock of the antiquities pertaining to megaliths in South India.

The work pertaining to the excavations of the megalithic sites got a phillip at the hands of Alexander *Rea* who excavated a number of megaliths at the end of the 19th century which continued even in the 20th century when he excavated Perumbair in 1904–08. Another classic site was in the meantime tapped by Louis *Laqivue* who excavated Adichanallur. The publication of the *"Catalogue of Prehistoric Antiquities from Adichanallur and Perumbair"* by *Rea* in 1915 was another landmark which brought to the notice of the world of scholars the remarkable variety of material equipment associated with the megaliths. Between 1916–24 Hunt brought out the results of the excavations of the megalithic graves in the region of Andhra.

By 1930 so much spade work regarding the megaliths in India was done that it was thought fit to bring out a special India number of Man. By this time so many articles were published by different scholars on Indian megaliths that *Das Gupta* thought it fit to publish the *"Bibliography of Prehistoric Indian Antiquities."*[3]

In the post–Independence era, immense work has been done pertaining to the South Indian megaliths. Scores of sites have been excavated and the reports of a few have already appeared. However, the excavations at Brahma-

giri and Chandravalli[4] tried to give a chronological bracket for the megaliths in South India. The excavation of other sites followed during the last 25 years and remarkable data has been obtained from some of the notable sites like Ranjala, Takalghat–Khapa, Junapani and Mahurjhari in Maharashtra; Maski, Yelesvaram, Nagarjunakonda in Andhra; Sanur and Amirthmangalam in Tamilnadu; and a series of sites in Karnataka. The Karnataka sites have a significant bearing on the problem of megaliths in as much as they have brought out unique data so far unknown.

The amount of work carried out in respect of the megaliths can be assessed on the basis of the recently published "*A Bibliography on Indian Megaliths*" by *K. S. Ramachandran.*[5] It is not the volume of work done or the mass of data collected that characterize the studies of South Indian megaliths in the post–Independence era, but the conscious attempts to visualize through this data the environment, the economy, and the technology of the megalithic folk, the study of animal remains, pollen remains, metallurgical analysis and the ethnic traits of the human skeletal remains. Attempts are being made to recreate and understand the environment and the man themselves.

It is against this background that these lectures propose to take stock of the problem of the South Indian megaliths. Looking to the vastness of the data, it is not possible to go into the details. However, the aim of these lectures is not to catalogue or document, but to take a brisk survey and bring out the significance of the data in some respects. Without hesitation it may be

stated that no finality is claimed, nor any opinion accepted. This study has a modest aim of presenting an objective evaluation of the data which has piled up during the last century and a half.

Provenance & Distribution :

It is well known that megaliths in India are mostly concentrated in South India, though they have also been reported in other parts of India. It is also well known that among some of the tribal peoples of India megalithism in some form or the other is in vogue. However, taking into consideration the concentration of these in the South, the marked regional variations in the north of Narmada, and the supposed Southeast Asian origin of traits of megalithism practiced by the east Indian tribes it is obvious that South India, especially Andhra, Tamilnadu, Kerala, Karnataka and parts of eastern Maharashtra, remain the traditional land of megaliths.

Speaking in a larger context, megaliths have been reported in Rajputana[6], Uttar Pradesh[7], Gujrat,[8] Kashmir, Sindh, Punjab and Baluchistan.[9] They have also been traced as far north as the Tibetan border, but their concentration in the South is too outstanding. Irrespective of typology, which has been discussed elsewhere, a noteworthy feature concerning megaliths in South India is the paucity of habitational sites. Inspite of literally hundreds of megalithic monuments, there are not even a score of habitational sites so far discovered. Notable exceptions, however, are there in Takalghat and Paiyampalli. Recently, remarkable evidence in respect of typology and habitational remains has been discovered in

Bijapur, Gulbarga, Dharwar and Belgaum districts of Karnataka by Dr. A. Sundara[10] of the Karnatak University.

Thus, the ratio of the habitational sites to the burial monuments is exceptionally low. Taking into considera-tion the fact the varied economic and professional advance of these people, it is certain that the megalithic pepole, though possibly nomadic, were certainaly not barbaric. The evidence further shows that they had possibly a longer duration in the South. This is further confirmed not only by the concentration of these monuments in the South but also by the elaborate typology of the megaliths evidenced more in the South than any where else.

Topography and Environment

As noted elsewhere, the megaliths have a larger concen-tration in the south. Inspite of this, the topography associated with these monuments is varied. For instance, in some regions, megaliths are found to have concentrated themselves near irrigation tanks whereas, in some cases, they are found to have been erected in dry areas where the rock bench is high and the soil cover, feeble. It has been pointed out by *Banerji* that megaliths sprang up in regions where the climate was conducive to the thriving of popu-lation. He has thus argued that in South India, megalithic monuments are found near large tanks which accommo-dated the rain water from the slopes of the hillocks nearby. On the basis of this observation he argues, though not justifiably, that the megalithic people possibly introduced tank irrigation in the South[11]. However, even in the South, the cists have been found to cluster on the high rocky plains. Similar is the case with the stone circles at Mahurjhari.

The climatic environment must have been varying from region to region. For instance, the climatic conditions in Kerala must have been different from that available at Maski. This has been corroborated by the pollen–analysis, which suggests a temperate climate[12]. Unfortunately the results of pollen–analysis, if any, from other sites are not yet available.

The nature of agricultural tools imply their use in hard soil. The animals domesticated as evidenced by the faunal remains from Maski show that these people had domesticated cattle of the short horned humpless variety which are useful for such tough agricultural operations, and the sheep which generally thrive in regions with moderate rainfall.

The total evidence thus tends to show that the megalithic folk of South India eked out their livelihood in in an environment which was devoid of extremes.

Typology

As mentioned elsewhere, the stray attempts at unearthing the mystery of the megaliths initially failed to give classified categories of these monuments. Initial attempts, therefore, were interested more in unearthing the mystery of these, rather than attempting typological grouping according to regions.

The first scientific attempt at classifying these monuments was done by *Krishnaswami*.[13] However, earlier than that, as early as 1837, *Breeks*[14] mentions the find of cairns, barrows, stone circles, cromlechs, and kistvaens, as available in the Nilgiri areas. In 1851, *Taylor*[15] mentions the find of pit–circles, cists and cairns. In later period, *Codrington*[16] proposed six types of ancient burials in South

India. However, all these attempts at classifying by *Codrington* and *Krishnaswami* have not proved to be comprehensive. Entirely new types are coming to light. For instance, within the group of stone circles, double-and tripleringed circles have been reported in regions separated from each other by long distances. As long back as 1880, *Branfill*[17] refers to a triple ring of circle stones of dressed slabs with semi-circular and rectangular heads arranged alternatively at a site in North Arcot district. Passage graves in Belgaum and Kaladgi districts have been reported as early as 1874 by *Burgess*.[18] Two unique types have recently been reported from Bijapur district, one of them having a port hole in the circle stone connected with the chamber through a passage.[19] Cairn-circles with a passage in front have also been reported from Dharwar district. Even in respect of the menhirs, there is a variety. The vast field of menhirs oriented in the form of avenues from Maski is too well known. *Yazdani* has also mentioned the famous Hanamsagar avenues where, about two hundred boulders are found to have been arranged in parallel rows with the southern end having some sort of a rectangular alignment.[20]

All these attempts have, however, failed to incorporate the types so far known, or are not liberal enough to accommodate new types. In matter of classification it may be noted that surface indication is not always the correct basis for categorizing these monuments. A case in instance is that of Adichanallur where urn burials have been found without any association of a stone circle. So, on the basis of the meaning of the term megalith in vogue, these cannot be technically called megaliths, but the material equipment of these is all megalithic.[21] Thus, it is futile to refer to earlier attempts of classification as they are not

comprehensive and are based mostly on surface indications. Recently, however, *Allchin*[22] has classified the megaliths into six main types. They are as follows :

1 Large urns, often pyriform, containing collected bones previously excarnated and buried in a small pit, marked in some cases by a stone circle or small capstone or both
2 Legged urns and legged pottery sarcophagi
3 Pit-circle grave
4 Cist grave
5 Rockcut chamber, and
6 Alignment of rows of standing stones.

It will be apparent, however, that this classification also does not take into account the new types reported from the Karnataka region by *Sundara*.

A plea for classifying the Indian megaliths on the parallels of European typology has been made by *Dikshit*[23] who tries to group them into six categories as follows:

a) Dolmen
b) Underground rockcut passage caves
c) Menhir
d) Topikallu
e) Kudakallu and
f) Cist

He further pleads the sub-division of these into three main categories :

a) Imported types
b) Indigenous, and
c) Origin not known

In the first category he puts dolmens, rock-cut caves, menhirs and cists. In the second category he makes two further divisions, the first being of urns and extended burials which ware possibly adopted from indigenous cultures and the second comprising Topikallu and kudakallu. The cairns, cairn-circles, etc., are assigned to the third category.

It will be agreed that this classification also does not hold good and many will wonder whether the types supposed to be imported are really imported or otherwise.

It is significant to note that typology of the megaliths has been influenced by the geology of that particular region. This is apparent in the material used for the cists as well as in the boulders which outline the circle.

So far as the general distributional pattern of the major types of megaliths is concerned, it may be stated that the stone circles with cairn filling is the type available in the Vidarbha region of Maharashtra; passage graves, in Karnataka; rockcut chambers and the Topikallu; in Kerala; and the menhirs, in Andhra as well as Kerala; whereas the other types have no specific regional distribution.

The significant aspcet to be noted, however, is that inspite of architectural differentiation, the material, equipment associated with these types is surprisingly uniform. And this really forms the core of the problem. Inspite of varied typology, the basic ancestry is homogeneous. This therefore, leads us to the description of the ancestry and the material equipment of the megalithic people.

Origin

In spite of a vast number of megalithic remains in the South, and in spite of the fact that several of these have been tapped so far, the problem of the origin of these yet eludes solution. Different opinions have been expressed in this connection. It may also be pointed out here that the skeletal data has been so far inconclusive.

Regarding the origin of these, two main schools of thought may be taken note of here. These pertain to those who advocate a non-Indian origin or contact and those who assign the megaliths to the indigenous people themselves.

For instance *Ghurye*[24] advocates the view that even though the megaliths are intimately connected with the Egyptian funerary monuments, the dolmen originated in India proper. These, according to him could be dated to about 1000 B. C. He further adds that the Buddhist Stupa was derived from the Indian megaliths. *Heimendorf*[25] looks to the western source for the origin of the megalithic folk. On the analogy between the port hole cist in India and the Mediterranean region, he visualises the first point of contact on the west coast. *Lal*[26] emphasizes the typological similarities and the identity of some of the grafitti marks as available on the Black-and Red megalithic ware of India and the Black-topped ware of the Nubian graves in Egypt. However, he emphasizes the chronological gap between the two. Moreover, he has also pointed out that the Nubian graves are completely devoid of iron.[27] The western links, though not in terms of origin, were also emphasized by *Hunt.*[28] He has suggested that nickel impurities in copper as traced in Indian megaliths possibly

suggest a link with Mesopotamia. It will be agreed that such points need not be stressed further.

Childe,[29] on the other hand, is more cautious. He has pointed out that whereas in Europe the distribution of megaliths has been along the shores of the Mediterranean and the North sea, in India the culture penetrated far into the interior and probably travelled from the west. He further states that this process of expansion is not yet clear.

Heimendorf, however, states that the megalith-builders of the south, were speakers of Dravidian languages. This iron-using culture, according to him superimposed itself on the indigenous cultures. He advocates that the megalithic culture possibly immigrated into india by sea or possibly these people moved southward along the west coast of India.[30]

Though it is not possible to be precise regarding the origin of megaliths in India, it is significant to note that some of the tribes in India still practise some aspects of the megalithic culture. *Breeks* has long back pointed out some of the practices of the Todas in the Nilgiris, which recall those associated with the megaliths in India. *Sankalia* has mentioned the worship of the dolmen by the shepherds in the Poona region.

Besides the association of some of the tribal people with megalithism, it may be noted that in some regions the megaliths are associated with mythology. For instance in some of the regions of Andhra and Karnatak, the megalithic monuments are referred to as "Pandavara mane" or "Pandupare" i. e., respectively 'House of the Pandus'

or 'the Stone of the Pandus',[31] whereas elsewhere they have been referred to as "Rakshasa gallu"[32].

There is yet another category of scholars who try to trace the origin of some of the megaliths in the literary sources. Recently *Gaur*[33] has tried to trace the structural elements of some form of the megaliths to the *Satapatha Brahmana* After having stated that, he goes on to add that the megaliths could be interpreted as a crude form of votive *stupa*.

Some scholars, on the other hand, seem to disagree with all the theories mentioned so far. Pande[34] in a recent article, seems to suggest that megalithism, at least in Kashmir, possibly evolved out of the earlier neolithic practices. In support of this, he points out the use of big-stones in the neolithic burials, a trait also to be noticed in megalithic burials.

The foregoing discussion makes it clear that there is no unanimity regarding the origin of megaliths in India. The references in Sanskrit and Sangam literature[35] might at best refer to the prevalence of megalithism in some form or the other in the contemporary period. Moreover, the dating assigned to these literary sources being uncertain, they do not help much. Similar is the case in tracing the identity of some of megalithic practices in the tribal population. These features hardly help to seek the origin or fix the date of megalithism in India. Obviously, there are also difficulties in linking the Indian megaliths to the inspiration solely from the west. Moreover in India itself, their provenance as well as the dates available for the introduction of iron in the north and the south have to be taken note of.

In the light of the excavated data in India, and also in different regions of the south in particular, it is apparent that megaliths in India are characterized by regional variations in typology as well as material equipment. For instance, the stone circles with cairn filling is the only type available in the Vidarbha region of Maharashtra. It is also noteworthy that urns and the pit-burial associated with some form of megalithic burials were also prevalent in the Chalcolithic communities. Similar may be the case with the painted pottery. The white painted Black-and-Red and the painted Black-on-Red might owe their inspiration to the earlier chalcolithic cultures with whom the megalithic people might have come in contact at the beginning of the 1st millenium B. C. In this respect, the evidence from Bahal, Tekwada and Ranjala in Maharashtra is quite significant.

Inspite of all this, there seems to be an overwhelming consensus among scholars that the origin of Indian megaliths especially the South Indian, is essentially western, which includes the West Asiatic regions.[36]

LECTURE: II

Material Culture

Houses :

With all their wide distribution in India and concentration in the south, the nature of habitation of the megalithic people is not yet much in evidence. Save a few sites, it is not possible yet to have sites which contain both the burials and the settlement nearby each other. However, a few sites like Takalghat in Maharashtra and Paiyampalli and Kesarpalli in Andhra–Karnataka region, have yielded some evidence.

Except at Takalghat and Paiyampalli, the evidence regarding the pattern of houses has been scanty. For instance, at Hallur,[1] the author refers to the discovery of "patches of floors" belonging to Period II and states that this period seems to have witnessed "much burning" because of which "the available structures might have been destroyed". Kesarapalli seems to go a step further as it gave

evidence of "floor levels with postholes.[2] Takalghat,[3] the habitation site associated with the stone circles at Khapa on the opposite bank of the river Krishna, gave a better evidence.

The earliest megalihic habitation here was evidenced in the form of a flooring made of one centimetre thick layout of hard and compact brownish clay devoid of any impurities. This flooring was explored to a length of 3.32 metres and a width of 2.17 metres. In this floor was found to have been sunk wooden posthole about 20 cm. in diameter as evidenced by the disintegrated remains of wood discovered in it. The author states that from the patchy evidence associated with Phase I of occupation it appears that the houses had possibly rammed clay floors in which wooden posts were sunk which must have supported a light roof above.

The subsequent phase of occupation here, belonging, however, to the same cultural period, attested a quick succession of floors. These floors were made by ramming a deposit of lime and dark brown clay with kankar to an average thickness of 3.72 cm. over a bedding of black sticky clay. Such houses with lime and clay floors seem to have mud walls of compact yellowish clay. The clay seems to have been mixed with very fine sand and the wall was impregnated with bamboo screen, the impressions of which could be seen on the clay chunks of the wall. It, thus, appears from Takalghat evidence that the megalithic inhabitants there constructed houses of clay with clay and lime floors. It may be noted here, that this constructional pattern was similar to that in the earlier Chalcolithic habitations in the Deccan.

At Paiyampalli, on the other hand, the evidence seems to have been more rewarding and revealing. *Rao*,[4] in his excavations, obtained evidence of circular as well as rectangular houses. The former were also sometimes oval or oblong on plan. These had a diameter ranging between 1.5 and 3 metres. The rectangular ones, on the other hand, measured 1.7 m. by 4 m. He further states that the periphery of the houses had rubble flooring, whereas some houses were rubble-bound. The evidence pertaining to the floors showed that they were made by laying stone chips which were covered with **murum** and then plastered with lime. There were also post-holes in these floors though their nature has not been described. The normal pattern was that of a single-roomed house but evidence of a double-roomed house was also available at Paiyampalli. The nature of the roof could not be ascertained.

The evidence from Brahmagiri in respect of structures was scanty, though the megalithic burials were abundantly found. Period II, designated as the Megalithic culture, did not evidence any stone walls. However, the excavators could detect occasional post-holes indicating "timber-construction, at least for ordinary domestic buildings".[5]

From the available evidence, it is not possible to know the internal arrangement of these houses. No evidence has so far come to light regarding the hearths and the storage arrangements in the kitchen. However, it appears that terracotta and iron lamps were used to light the interiors of these houses. For instance, at Paiyampalli,[6] a circular

terracotta lamp with eight lips for the wick, was recovered in the habitational area, whereas at Kilnattam,[7] *Rea* refers to the find of an iron saucer lamp. It may not be illogical to hold that the wicks were possibly of cotton, as cloth has been evidenced in the form of impression on certain bronze objects referred to elsewhere. On the basis of the available data on the economy of the megalithic people, it may also be possble to suggest that they used some millet oil for the lamps.

Food and Economy

The evidence regarding the economy and food habits of the megalithic people is direct as well as indirect.

The indirect evidence tends to show that these people were practising agricultural economy with hunting and fishing as part-occupations. The occurrence of the bone remains of sheep, goat, cattle shows that these people led a settled life and used these animals both for farming and for food. The Maski evidence points to the domestication of cattle of short-horned humpless variety.[8]

Agricultural tools also show the agricultural economy practised by these people. Iron sickles have been reported from a number of megalithic sites.[9] Besides sickles, iron-strapped hatchets have been discovered at Pochampad, while cairns from Hashmpet have given a prong of a hayfork or ploughing implement. Plough-shares have been found at Mahurjhari in Maharashtra, while a Roman plough coulter has recently been identified at Brahmagiri.[10] It has been stated in this connection, that these coulters could have

come to India as a result of active Roman trade. Coulters were designed, according to the writer, for heavy soil like the Deccan Cotton soil. To suit the nature of the heavy soil, such Roman plough-coulters must have been imported.

Agriculture must have resulted in the production of grains. Direct evidence of grains from megaliths has been available at Paiyampalli where charred grains of gram **(khulti)**, green gram and cereals resembling **ragi** have been recovered.[11] Earlier, such evidence has been available from Gajjalakonda in Kurnool District. Here pots in cairns were found to contain decayed grains.[12] Cromleches from Fraserpet in Coorg[13] yielded pots containig paddy husk as also **ragi**.

Such grains were possibly pounded for preparing bread. Soapstone and granite pestles have been found at Brahmagiri[14], Junapani,[15] Mahurjhari[16] and near Kolar.[17]

Food was supplemented with fish. Fish–hooks have been reported from Tangal in Chingleput district.[18]

Besides agriculture and fishing, the megalithic people must have practised hunting as a supplementary occupations. The Brahmagiri stone balls are suggested to have been used possibly in hunting.[19]

Even though on the basis of agricultural tools, grains and fish hooks, the megalithians appear to be agricultur–ists, their equipment in terms of golden ornaments and a range of copper and iron apparatus, points to their being semi–urbanised.

This semi-urban economy is further corroborated by a very sophisticated range of carpentry tools. As has been referred to elsewhere, the megalithic people had a fairly varied range of chisels and adzes which surely must have been used in dressing wood and in making various types of mortice holes. Such a refined working on wood implies a mastery over the use of wood in construction. It may be mentioned here that construction of houses with dressed wooden members which could possibly be interlocked with the help of mortices and tenons certainly represents an advance over the Deccan Chalcolitic.

The series of well developed carpentry tools, tools for agricultural use, a fine range of golden ornaments from diadems to small rings, the use of lacquer-core for some gold work, composite tools of iron and copper and the preparation of elaborate ornaments for the horse involving possibly the stitching of copper sheets to leather base-all these speak some sort of specialization in different arts which again imply some sort of semi-urbanised base for the economy of the megalithic folk.

A very remarkable suggestion has to be taken note of in this connection. For instance, at Sanur,[20] bars made of iron were recovered in the megalithic context. The excavators, *Banerjee* and *Soundararajan*, suggest that these bars might have been used as currency bars. It may, however, be noted that such evidence has not been so far available from any other site. If, however, what the Sanur excavators have proposed was in reality the case, this again would emphasize the urbanized nature of the megalithic people.

Another aspect pertains to the cupmarks on the megaliths. As early as 1879 *Rivett-Carnac* proposed[21] that the cupmarks on the megaliths at Junapani in Maharashtra possibly formed some sort of a code message. Though it is not possible to accept the proposition of *Rivett—Carnac*, it may be possible to assume that the megalithic people had some means of expression, whether expressed in the form of cupmarks or graffiti which again is a trait of an advanced people.

It thus appears that the megalithic community comprised groups of craftsmen versatile in the professions of carpentry, smithy, agriculture and possibly weaving. This certainly shows an advance over the earlier Neolithic-Chalcolithic cultures of the Deccan, which were apparently not so well equipped as the megalithic people.

This advance was possible because of two reasons. The first is possibly a strong agricultural bias and secondly mastery over iron. The agricultural tools, plough shares, hoes, plough coulter, reflect that the megalithic people had devised tools which could be useful in tilling hard soils. The association of irrigational tanks or perennial rivers with the megaliths in some region indicates the possibility of the megalithic culture having a strong agricultural bias. So far the megaliths proper have yielded quite a range of animal bones which comprise sheep, pig, tortoise, dog, *Bos Indicus*, and cattle. The habitational deposits of the megalithic people at Takalghat[22] have yielded similar bones. It thus appears that a strong and possibly a self sufficient food producing economy made it possible for the megalithic people in India to master different crafts.

Pottery

The ceramic industries associated with the megaliths comprise the following wares :

1. Black-and-Red ware
2. Burnished black ware
3. Red ware
4. Micaceous Red ware
5. The Painted wares

Of these, the Black-and-Red has a distinctive fabric and is associated with megaliths throughout the south. Another point to be noted is that this ware is available both with the burials and the habitation.

1. Black-and-Red ware

As stated earlier, this ware has been associated with the megaliths practically throughout the South. As for its technique, there is a divergence of views. At Brahmagiri and Maski, which are the classic megalithic sites, the ware has a coarse to medium texture and the surfaces bear a slip and a polish. The ware is essentially wheel-turned and was found to be fragile because of insufficient firing.

The ware is completely black inside as also on the external rim portion, but is reddish on the external bottom. This is supposed to be the result of what is technically termed as the inverted firing.[23] As for the shining surfaces, there is no unanimity of views. As early as 1873, *Hunter* had mentioned the process of rubbing the surfaces of the

pot with the juice of toothy plant or *Abutilon Indicum* and then refiring the vessel which results in the appearance of a thin glaze.[24] On the other hand, *Caldwell* holds that the pots were not glazed but merely polished.[25] *Wheeler, Thapar*[26] and others, however, hold that the surfaces were salt glazed so as to produce a shining, though crackled surface. Recently, however, *Mujumdar* has carried out some laboratory investigations of this ware at Poona. According to him, the megalithic Black–and–Red ware is a result of double firing. He holds that the pot, if fired red first, can be refired into black colour by some special arrangements. If on the other hand, a pot is fired black first, it can be turned into red. He advocates the view that the position of the pot in the kiln does not matter much.[27]

The Black–and–Red shows essentially utilitarian and plain shapes. Rimless bowls, carinated bowls, dishes, carinated lids or covers, vases, basins ringed stands, lipped bowls, cups-on-stand and narrow mouthed jars with pointed bases, have been the common shapes in the material so far published. In addition to these, channel–spouted jars[28] and legged pots as also ladle shaped pottery are the distinctive shapes in this ware. The legged jars have been reported from Porkalam and other places in the south, though they are totally absent in Maharashtra.

Apart from the technological distinction and the distinctive look, this ware is characterised by pots with tapering pointed base.

2. Black burnished ware

This ware, which is associated with most of the megalithic sites, appears to have been analogous to the Black–

and-Red ware referred to above. As the nomenclature denotes, the ware is entirely black and has shining surfaces. In the case of the Brahmagiri Black ware, it has been stated that as compared to the N. B. P. ware, the megalithic Black ware does not seem to have been executed with care. It has been stated that a thin wash of ochre clay seems to have been applied and the pots fired in a reducing atmosphere at a temperature lower than that in the case of the N. B. P. ware. The slip in the latter stands out as a distinct layer, whereas in the former it is notably less distinct.[29] *Plenderleith,* writing on the black polished pottery from the urn burials at Wynaad opines that the pottery possibly bore black colouring clay in the form of an alkaline slip which acted as a flux in high temperature. According to him, the fired pots were then subjected to polish which resulted in the presentation of a bright shining black surface.

The outstanding shapes in the Black burnished ware comprise elongated vases, tulip-shaped vases, funnel shaped lids, goblets,[30] spouted vessels (possibly used for distilling),[31] circular stands with triangular and rectangular perforations on their sides[32] and knobbed and rimmed lids as also those with bird and animal finials.[33]

3. Red ware

In addition to the two wares referred to above, a type of dull red ware is also to be met with especially in the pot burials. This ware, though essentially wheel made, is lesser in quantity than the first two, and shows some distinctive shapes like the double knobbed lids and the legged vessels. The legged vessels are in the form of pots with somewhat

globular body and stumpy pointed legs which support the vessel. These have been reported from Brahmagiri and allied sites in Andhra Pradesh. In addition to that, the red ware also has given ringed stands and vases. The ware presents a drab appearance and the shapes are strictly utilitarian. Some of these vessels, however, bear decoration in the form of cording and finger tip decoration.

4. Micaceous red ware

This has been abundantly found in the stone circles of the Vidarbha region in Maharashtra. The ware contains large flakes of mica as also fine sand and hay as degraissant. The core of the ware shows under-firing which makes the ware extremely brittle. The typical shapes comprise pots with globular body and funnel mouth, and basins. In the case of the former, the body thins down towards the bottom with the result that it becomes top heavy. As such, such pots must have been kept only on the ring stands. It may be mentioned that in the stone circles in Maharashtra this is numerically the most abundant and must have been made of local clay.

5. The painted wares

As early as 1889, it was reported that the dolmens in Coimbatore district[34] had yielded painted pottery. Further evidence was available in the stone circles of the same district in 1901,[35] and subsequently *Rea*[36] also reported the find of painting in the form of dotted slanting lines on the rims of black-and-red pottery. Painted pottery has also been reported from, the rock-cut caves of Malabar[37] and thh Kodaikanal monuments in Travancore-Cochin.[38] Dur-

ing the last ten years more evidence of painted pottery associated with the megaliths has come to light. For instance, Junapani in Maharashtra gave, in one of the stone circles, a spouted bowl in red ware with oblique strokes in black on the rim.[39] Paiyampalli megalithic habitations also gave thin coarse red ware with painting in chacolate or light brown colour depicting human and plant figures.[40] A fairly good evidence of a red ware bearing externally geometrical designs in black, has been available from the megalithic habitational site at Takalghat, whereas the stone circles at Mahurjhari yielded micaceous red ware bearing groups of vertical lines in drab black externally on the rim. The site of Hallur gave fairly good evidence of the black-and-red ware painted in dull white.

In addition to this, the megaliths of the south have given the yellow painted Andhra ware which is too well known to be described in detail here.

Thus it appears that the painted wares associated with the megaliths can broadly be grouped into two categories.

a) Black-on-Red and

b) Painted white Black-and-Red

It may further be noted, that in make, typology and technique these are exclusive of each other. Regarding the origin of these, it is difficult to be categorical. Views have already been expressed regarding the existence of an earlier non-megalithic Black-and-Red ware cultural phase in at least the Karnataka region.[41] It is argued that there is a non-megalithic Black-and-Red ware cultural strain originating from Western India surviving from the chalcolithic

age along with the Iron Age megalithic cultural mileau. It may be stated here, that it is rather premature to talk of a substratum unless the entire Black–and–Red ware right upto the southernmost part of India is available in a non–megalithic context.

If, however, the chalcolithic ancestry of the Black–and–Red ware is assumed the same will have to be applied to the parentage of the painted pottery. For this, however, analytical and typological studies on a comparative basis are essential.

A word may be said here about the graffiti on the Black–and–Red ware. Whereas some think that the study of graffiti might provide a clue to the origin of the Brahmi script[42], others compare the marks with the Egyptian heircglyphs and take them to be ideographs.[43] *Hunt*, on the other hand, argues of the possibility of their being tribal marks.[44] However, the most exhaustive study of the graffiti has recently been published by *Lal*.[45] He points out that 89% of the symbols are common to the Harappan, Post–Harappan and chalcolithic pottery. He sees connection between the Deccan and Central Indian chalcolithic and the Harappan, and further points out that the Black-and-Red ware and the fractional and extended burials might provide connecting links between the megali thic and the Deccan chalcolithic.

One more point may be emphasized here, and this pertains to some of the pottery shapes associated with the megaliths. Whereas the multi-spouted pots might have served some ritualistic purpose, those with animal and bird finials might imply the importance of these in pastoral life

or ideas associated with the return of the souls in these forms. An instance in this case may be quoted from *Logan* who points out the similarity between the pyriform burial urn and the human uterus. The interment of the dead in such urns might, according to him, symbolize man's return to Mother Earth.[46]

It will thus be apparent that the megalithic pottery, though essentially utilitarian, was also distinctive and possibly with some ritualistic significance.

Cloth and Clothing

There is no direct evidence of the remains of cloth from the megaliths of South India and the Deccan so far. Though the megalithic people practised agriculture, as is evidenced by their use of the agricultural tools and equipment referred to elsewhere as also their domesticating some of the useful cattle for agricultural operations, it my be noted that the megalithic sites south of the Narmada are mostly concentrated in regions which are unfit for the cultivation of cotton, save the region of Vidarbha.

The sites like Junapani, Mahurjhari, Takalghat, Khapa and Kaundinyapura from the Vidarbha region, have so far not yielded any direct or indirect evidence of cotton or any other cloth.

It, however, is certain that the megalithic people knew cotton cloth. The indirect evidence in this respect comes from Adichanallur. *Rea* has mentioned that he could note traces of cloth sticking to the bronze objects kept inside the urns.[47] He states that "On several of the bronzes are traces of cloth, which have been preserved by contact with

the oxidized metal. Many of the vessels contained rice and millet seeds.." It may not be illogical, therefore, to presume that these grains were possibly tied in a piece of cloth and were kept inside the bornze vessels for the use of the departed.

Further supplementary evidence has also been mentioned by *Breeks*. In the megaliths from the Nilgiri region, he reports to have found a bronze bowl and an iron razor which bare traces of cloth wound around them.[48]

Obviously it is not possible to say as to what the material of the cloth was. Nor it is possible to know, for want of scientific analysis, the nature of the weave of the cloth.

Ornaments

The megalithic people seem to have been very particular about personal hygine and ornamentation. As articles of toilet, they used mirrors, combs and nailparers, as has been referred to elsewhere.

In addition to toilet, they knew how to decorate their person. This is evidenced by various ornaments made of gold, silver, copper, shell, terracotta as well as the beads of semi-precious stones. It is evident, therefore, that they knew how to work on these metals. It is also quite clear that they were conversant with the sources of these metals as also the process of preparing alloys.

That the megalithic people utilized gold skillfuly for the preparation of ornaments is evidenced by the different

objects recovered at Adichanallur, Maski, Junapani, Nagarjunakonda and a few other sites. Adichanallur gave gold diadems beautifully made and comparable to Mycenae.[49] Golden rings have so far been reported in chromlechs at Janampet, Warangal District and near Mysore. The specimen from Mysore is a very thin piece of gold[50] with holes at either end. Spiral rings of gold have been reported from Junapani[51] and Mahurjhari. Besides these, golden bangles have been found at Junapani and spiral ear-ring made of gold wire, from Nagarjunakonda[52] and Mahurjhari. A beautiful specimen of a bangle made of fine discs of gold threaded on a copper wire with hooked ends, has been recovered in a stone circle at Junapani. At Mahurjhari beautiful necklace with cabled golden strips having a rectangular gold leaf pendant mounted on a lacquer base is a noteworthy specimen of skilled craftsmanship. Along with this, the same site has given elongated gold wire ear-rings with multiple rings threaded in it. Gold beads have also been reported from Maski[53] and Nagarjunakonda.

Along with gold, the megalithic people also seem to have made use of silver in preparing ornaments. Silver studs and spacing beads have been reported respectively from Junapani[54] and Nagarjunakonda. It also appears that these people were adept in making an alloy of silver and gold. For instance, the Mahurjhari specimens show as much as 40% silver in the makeup of ear ornaments. These people were also skilled artists in the execution of long gold wires and strips of uniform thickness, working of gold leaf on lacquer base and ornamentation in repoussé.

Besides gold, the megalithians also used copper for bangles, bracelets and anklets, Copper bangles have been reported from Brahmagiri.[55] Mahurjhari and Khapa have given more than 70 copper bangles with open ends, which are decorated with a series of chevron decorations. These bangles are found to have been made by hammering copper bars with sharply cut ends. The find of a copper bracelet associated with the bones of a child has been reported by *Coggin Brown*.[56]

Shell also seems to have been used for the preparation of ornaments like ear-studs and bangles. *Rea* has reported the find of decorated shell ear ornaments in the sarcophagus at Perumbair.[57] Sanur also has given earstuds of shell with incised decorations.[58] The habitation site at Brahmagiri, on the other hand, has given shell bangles.[59]

Apart from costly metals, it appears that the poorer sections of the megalithic community used terracotta nose and ear ornaments as evidenced at Tangal in Chingleput district.[60]

It is, however, in the beads of semi-precious stones that the megalithic taste for refinement is apparent. The beads represent the use of a variety of materials, as for instance, agate, carnelian, chalcedony, coral, crystal, garnet, jasper, lapis-lazuli, magnesite, paste, quartz, serpentine, shell, steatite and terracotta. Metals like gold and copper were also employed for the use of beads.

It is apparent that the megalithic people knew how to fashion, perforate and polish beads of semi-precious stones. Sites like Mahurjhari seem to have been bead-making

centres as Mahurjhari continues to give hundreds of unfinished beads. With the varied types of tools known to them, it is but logical to propose that the megalithians must have been in possesion of the technical know-how in respect of bead making.

However, certain materials need some comment. It is significant to note that glass was known to the megalithic people. Glass beads have been reported from a number of sites, whereas bangles of opaque glass have been found at Paiyampalli[61] and Maski.[62] Glass beads have also been found in the stone circles at Mahurjhari and Khapa. On the basis of the C-14 dates from Takalghat, it appears that glass was known to the South Indian megalithians as far back as 6th-7th century B. C. Another material which deserves comments is lapis. As is well known lapis is a material which is not indigenous to India. As such, it seems to have been imported from regions outside India which speaks of the contact, either cultural or trade, between the two regions. It is also worth notice that the megalithic people could turn out very minute beads of magnesite and steatite, as also could handle a rare material like serpentine.

Besides the normal material in the form of semi-precious stone or metals like gold, the megalithic people were also well versed in preparing beads of wood covered with gold plate.[63] It is, however, in the etched carnelian beads that the megalithic people show their distinctive taste. Several of the megaliths in the South have given a fairly good number of etched carnelian beads. The etched designs on some of these are restricted mostly to the South Indian megalithic sites.[64]

It has been pointed out by *Dikshit* that some etched patterns are typically megalithic. He suggests that the tablet and the cylindrical beads of cornelian with the following designs are typically megalithic. To quote him *in extenso* will be as follows: "(a) Tablet shaped beads with minute spots closely set at the periphery; or those with short radial lines near the periphery; or those with the above decoration and an additional square in the centre; or those with a dash or a spot in the centre; or tablet beads with radial markings divided into two hemispheres by long longitudinal lines; (b) Cylinder beads with one or two rows of chevrons in the centre with marginal bands at the ends; or those with marginal bands and triangular pattern in between; or those with zonal bands at the sides and a row of oblique strokes in the centre."[65] These are typically south Indian types mostly associated with the megaliths. It will thus be apparent, that like the specialised tools of iron, there were specialised etched patterns on beads which can readily be identified as of the megalithic.

Objects of toilet

The megalith builders of South India appear to have used specialised objects of toilet. Though the evidence for these is quite limited, the range shows the refined taste of these people.

That these people used some type of comb is evidenced by the discovery of an iron adze bearing an impression of a comb at Khapa.[66] It appears that the comb was placed over the adze nearby the skeletal remains. In course of time, the oxydized portion of the iron tool got the impre-

ssion of the comb placed above it. From the impression it appears that the comb had a series of closely set medium long teeth resembling the modern counterpart. It is logical to assume that the comb was made of wood which in course of time completely disintegrated leaving only the imprint behind. In length, it is 6 cm. and the lenght of the teeth, as extent in the impression, is 2 cm.

Another article of toilet in use was the razor made of iron as referred to by *Breeks.*[67] He mentions the discovery of an iron razor with traces of cloth wound over it and kept in a bronze bowl. The latter was recovered in a megalith from the Nilgiri area.

A number of megaliths from the south have also given nail-parers[68] made of iron. These have been found in fairly good number at Mahurjhari and other meglithic sites in Vidarbha region of Maharashtra. These are medium long rods of iron with cabled body, having one end broad, thin and convex and the other tapering to a point. The working end is either convex or straight. It may be mentioned in this connection that similar nail-parers are even now in vogue in Maharashtra. The other end, which is pointed, was possibly used as tooth-pick or ear-pick.

Nail-parers, combs and razors tend to speak of the aesthetic tastes of the people connected with the megaliths. In addition to these, it appears that these people possibly used circular bronze plaques as mirrors. Such circular plaques with projecting tangs and central boss have been reported from Adichanallur and designated as mirror by *Codrington.*[69]

Metal objects and Metallurgy

The metal equipment of the megalithic people is really astonishing. Iron, copper and bronze were very adeptly utilised for the preparation of daily utilities as well as weapons of offence and defence. Besides, objects made partly of iron and partly of copper have also deen found in different megaliths in South India.

Among the iron tools, the range of objects comprises flat iron axes with cross iron bands, daggers, swords, arrowheads, spearheads, knives, etc. Besides these tools of offence, a range of carpenter's tools in the form of a series of chisels as well as domestic utensils like frying pans, saucers and ladle or lamps have also been reported.

Among the tools of offence, mention may be made of swords recovered from Adichanallur, Khapa daggers with straight blade and pointed tip and a tang to be accommodated in a wooden handle, barbed and plain arrow heads, lances, flanged spears and a variety of daggers.[70] It appears that the daggers were either tanged or their handles were covered with wooden pieces rivetted with iron as at Mahurjhari. It appears that some of the arrowheads were fixed to wooden shafts as has been attested from a cromlech near Mysore where iron arrowheads and spearheads with remnants of wood were recovered. In some cases, the daggers were equipped with copper hilt as at Mahurjhari and Pochampad. On the other hand, some of these weapons appear to have been made for ritual use. For instance, some iron tridents seem to have some such significance. This is further emphasized by the fact that the

figure of a buffalo in the same metal is found to have been attached to the same shaft.[71] Some of the weapons seem to have been utilised for ceremonial burial as has been the case at Mahurjhari where dagger with iron blade and copper hilt was found to have been kept over the chest portion of the buried warrior.[72]

Among the carpentry tools, mention may be made of axes, chisels, adzes, etc, which have been found in large numbers. At Mahurjhari, chisels of as many as seven varieties have been found which show bevelled working ends of varying breadth which could be utilised for executing mortices in wood. These chisels testify to the advanced stage of wooden architecture involving dressing of wood and creating different types of mortice holes either for interlocking or for tenons.

The tools of offence in the form of lances, swords, etc. implied fight with the help of swift moving animals like the horse. It is a well known fact that bones of the *equidiae* family have been reported to occur extensively in the megalithic burials, especially the stone circles. At Mahurjhari and Junapani in Maharashtra, as also at Janampet, Sanur and other sites,[73] bridle bits made of iron have been reported. Snaffle bits, barbed bits with looped ends and barbed bit with looped nose and mouth piece have been known so far. It appears that ornaments for the horse made of copper sheets with iron rivetted knobs stitched over leather base have been reported from Khapa and Mahurjhari.

Among the objects of daily use mention may be made of frying pans of iron, nails, ladles or lamps and multi-

wicked lamps, many armed lamp pendants and saucer-hooked lamps.

The agricultural tools that have turned out from the megaliths comprise plough shares, hoes, sickles and plough coulter. Sickles have been reported from a number of sites, whereas the significance of coulter has been discussed elsewhere. Mahurjhari has given a fair variety of hoes which seem to have been rivetted to curved wooden handles.

Copper and bronze also were utilized, though not on a scale on which iron was used. The copper and bronze objects so far recovered comprise bells with iron tongue as at Junapani, Khapa and Mahurjhari and bigger domical bells possibly for the cattle or horse. From Raigir has been reported a bell attached to a bronze band which was possibly fitted around the animal's neck. Mention has already been made of copper bangles, and ornaments for the horse. At Mahurjhari again has been found a pair of copper dishes covered with lid with flaring base and finial in the form of either buds or perching birds. Besides such elaborate objects, bronze ferrules of walking sticks have also been reported from Hashampet[74] and Maski.

A word may be said about the technique of metallurgy known to the megalithians. It has been reported that at Paiyampalli evidence of iron smelting has been available[75] It may further be noted that some cases the bronze objects have testified to a very high tin percentage. Bronze cups from Raigir are reported to have 21% tin.[76] *Breeks* also mentions the presence of 29.89% tin in some bronze bowls from the Nilgiris. On the basis of the constituents of

bronze objects from Adichanallur, *Paramasivan* has suggested relationship with other countries[77] Reference has already been made of composite tools of iron and copper. In respect of technology involved in the make up of gold, it has already been observed that some of the ornaments or gold had a lacquer base, whereas some had an ornamentation in repoussé. It may be mentioned here that Paiyamplli, according to the excavator, has given a goldsmith's stone mould [78] It thus appears that the megalithic people were master metallurgists, which probably was possible because of a constant supply due to their knowledge of mining these various metals.[79]

Religion, Superstitions and Beliefs

It is rather difficult to be precise ragarding the religion which the megalithic people practised. Some idea, however, can be had from some of the data associated with the megaliths.

It is apparent that death was an important event in the life of the megalithic community. The way the elaborate stone circles or the cists were arranged and executed must have involved the united effort of a fairly large section of the community. From the variety of megalithic monuments and the nature of the skeletal data recovered in different types, it appears that there was a faiy variety in the burial practices. Full length or articulated or fragmentary skeletal remains speak of the different methods of burials. It is possible in some cases to assume that the dead was exposed for some time before burial. In some case, the fragmentary bone remains were found to have been interred. Irrespective of the nature of remains buried,

it is certain that belief in life after death prevailed almost universally among the megalithic folk. This is attested by the variety of objects buried with the dead.

There does not seem to have been any uniformity in the orientation of the skeletal remains. North-south was not the singular mode of burial of the dead. At Mahurjhari,[80] where single and multiple skeletal remains were found in one and the same stone circle, it was noticed that orientation was not according to any definite plan or practice. This is in contrast with the orientation of the dead in the earlier chalcolithic period where it was normally north-south, the legs being to the south.

The belief in the life after death is reflected in the variety of objects interred with the death. These included not only tools and weapons but also objects of toilet, ornaments, and pots and pans of domestic use. It may not be wrong to hold that the abundance or otherwise of these, reflected the social and economic status of the person concerned. It is significant to note, however, that even valuables in the form of golden studs, necklaces, beads, etc. and unique type of tools of offence like the daggers with iron blade and copper hilt were buried with dead, with a view, of course, that these should be useful to the dead in his life after death.

The burial of the horse along with the human remains s significant. According to some, this evidences sacrificiali ritual. For instance, in one of the megaliths at Nagarjunakonda,[81] was found an articulated bovine skeleton whose skull was cut slightly above the upper teeth position on the alveolar margin indicating sacrifice. North of Narmada,

at Kotia in district Allahabad, bones of bull, sheep, pig and cattle were found to have been cut as in sacrifice, whereas some were found in charred state.[82] It may, however, be stated that such evidence is rather random. Some, however, go to the length of stating that the horses which led the hearse (for which there is no evidence in India so far), were sacrificed and buried along with the dead.

There is, however, no doubt that animals seem to have played a significant part in the economy as well as in the burial practices of the megalithic people. Apart from the actual bone remains of animals, some of the megaliths have given figurines of animals, birds and human beings, though some are conventionalised. For instance, rock-cut caves in Malabar[83] have given iron objects which resemble a conventionalised human fiigure. At Paiyampalli,[84] on the other hand, terracotta figurines of birds and animals have been reported from Period II (Megalithic). Terracotta figurines have also been recovered from Sanur[85] and Pochampad.[86] Further south, *Walhouse*[87] reports the find of miniature buffalo and human figures of clay in a cairn at Ralliyar on the Nilgiris. The exact significance of these animal and human figurines buried with the dead is not clear.

Apart from such animal figures, it is significant to note that animal-headed terracotta and copper lids have been recovered in some megaliths, whereas in some, animal-shaped sarcophagi have been noticed. At Mahurjhari[88] and Khapa[89] in Maharashtra, for instance, copper and terracotta lids with goat finial and a group-of-four-bird finial have been found. In some copper bowls, associated

with these, were found fragmentary human bones. It thus appears certain that such lids or covers with animal and bird motifs had some unusual religious or superstitious associations in the megalithic burial ritual. In this connection, *Raghavan* suggests that certain animals came to be regarded as the embodiment of the soul. According to him in the ram–shaped sarcophagus from Cuddapah, the ram probably served as the "soul–animal". Among the pastoral people, sheep certainly played a significant role. Therefore, depositing the human skeletal remains in such sarcophagus or in copper container would imply the belief that the soul should be born again and again[90] and be amidst its relatives.

Some times even in the mode of burial, some beliefs are reflected. In Nagarjunakonda megalithes human bones were found to have been laid over some sort of a bedding of ash or lime and earth.[91] At Mahurjhari, a twin skeleton was placed on a series of bowls of the black–and–red ware.[92] It is not possible to interpret correctly the purpose behind such modes of burials. It is fantastic to interpret some modes philosophically as has been done in the case of the Yeleswaram evidence.[93]

Some scholars have tried to discern some super stitious beliefs or rituals in some features of the megalithic architecture. It has been argued that the hole in the slab of the cist was probably used for offering incense to the dead.[94] An early as 1882, it was suggested by *Walhouse* that the urn–burials contained the remains of sacrificed virgins and the iron weapons found associated with these as sacrificial weapons.

In some regions, the megaliths themselves are looked upon with some superstitious beliefs. *Congreve* mentions that in the Nilgiri area, the dolmen was believed to have curative effect.[95]

In any case taking into consideration the available evidence, it appears that the megalithic folk had a somewhat primitive concept of religion mainly centred round death, death-ritual and rebirth. It is worthy of note here that *Logan* pointed out the resemblance between the pyriform urn and human uterus. Burial in such urn thus, according to him, symbolised man's return to Mother Earth.[96]

LECTURE: III

Ethnic and Cultural Evaluation.

Dating

The dating of the megalithic monuments was a very uncertain problem for a number of years. Initially these monuments were supposed to be the work of the Druids and the Scythians. As more and more archaecological data was available, the picture became more clear, especially on the basis of the excavations at Brahmagiri by *Wheeler* who proposed 200 B. C., as the probable date for the megalithic culture.

Later on, the study of the Sangam literature as referred to elsewhere, brought out references to the urns, the cists and allied traits of megalithic burial. Similarly, some of the megalithic traits were also traced among the tribal pockets in India. However, these literary and sociological studies failed to give any final date to the beginning of the megalithic culture.

It is well known that the terminal date for the megalithic culture in the south is not much of a problem, evidenced as it is by the occurrence of more or less well dated Roman antiquities, especially the coins. It is thus more or less agreed that megaliths continued till about the 1st century A. D.

It is the beginning that is much more problematic, and in this regard different views have so far been advocated. Whereas *Wheeler* proposed 2nd century B.C.,[1] *Gordon* and *Haimendorf* push it back to a period between 1100 and 700 B. C., when according to them the iron using people came to South India from the Mediterranean.[2] Others attempt in dating these however around 3rd–2nd century B. C. as at Sulur and Sanur.[3] *Seshadri*,[4] however, puts the megalithic period between 6th century B. C. and 1st century A. D. A very sensational discovery has been made by *Sundara*[5] at Terdal where a neolithic barrow and a megalithic cairn have been assigned to a period of circa 1100–1000 B. C. If the proposed dating is correct then the Terdal cairns would be the earliest megalithic monuments in the Karnatak region. It may be noted in this connection, that *Aiyappan*[6] was also inclined to propose that the megaliths might go back to the neolithic times. A similar phenomenon seems to have happened in far off Kashmir where the menhirs were found to have been erected towards the end of the neolithic period.[7] An intermediate stage of the contacts between the megalithic and the chalcolithic has been visualised by *Sharma* in his excavation of the megalithic habitation sites in Varanasi district.[8] Thus the trend has been to push back the antiquity of megalithism both in the North and South India.

The Carbon 14 dates available from four sites so far also indicate dates earlier than the 2nd century B. C. For instance, the C 14 dates of Period II (megalithic) at Paiyampalli come to 315–100 B. C.[9] Dates earlier than this have been available from the megalithic habitational site of Takalghat in Maharashtra. Here the mid–phase of occupation has been dated, on C 14 showing to 555 B. C. and 605 B. C.[10] indicating an earlier date for the first occupation. Dates earlier than this have been available from Hallur.[11] These dates, however, come from the overlap between the neolithic and the megalithic. These are 955 and 1105 B. C. However, some scholars are not inclined to accept these dates on the basis of the fact that these come from habitation area which has not been stratigraphically linked up with the burials.[12]

It is apparent in the light of some of the C 14 dates and the suggestive contact between the Deccan chalcolithic and the megalithic that the dates proposed by *Wheeler* have to be discarded. The megalithism in the South cannot be considered to be an exotic phenomenon taking into consideration its spread, for instance, in the south as well as elsewhere. The problem is linked up even with the introduction of iron in the North and the South, and it is clear now that the antiquity of iron in both these regions has been pushed back much earlier than the 3rd century B. C. It is, therefore, logical that a full-fledged megalithic culture, having a cultural homogeneity of its own, which involves a longer period of time, is assigned to a period which can well be placed around circa 1000 B. C. by which time the chalcolithic cultures in the Deccan and the South had exhausted themselves.

People and the Society.

Having considered the material culture and the possible date of the megalithic people, the problems which face us pertain to the identity of the people and their social structure. It has already been mentioned that a number of scholars have pointed out the faint connection between the megalithic and some of the practices in vogue among some nomadic and aboriginal tribes. In this connection, reference may be made to the opinion of *Cunningham* stating that cromlechs and dolmens were possibly the temples constructed by Kurumbar shephards for their deities.[13] *Walhouse*[14] had long back mentioned the custom among the Kurumbar of throwing a pebble into a dolmen or creating a new one for throwing pebbles inside, on the death of a person. *Sankalia*[15] also mentions the use of dolmen near Poona as a shrine of Chadoba, a local village deity by the shephards there. *Breeks* also has pointed out the similarity between some of the megalithic equipment and that of some of the tribes in the Nilgiris. It thus appears that some of the aboriginal tribes in the south seem to have had megalithic cultural ancestry. We need not consider here the information that the megaliths in some parts are connected with the Pandavas and the Siddhas.

Earlier attempts at the hands of European scholars tried to pin down the ancestry of megaliths in India to Celto-Druids or Celto-Scythians. *Taylor* could also detect these Celto-Scythian elements in the Tamil language which in turn according to him had affinities with the Todas.[16] The study of the skeletal remains from Brahmagiri,

Yeleswaram, and Adichanallur have given mixed results. The Brahmagiri skeletal remains according to *Sarkar* show a robust constitution and powerful upper and lower jaws. According to him, these skeletons have no affanity with Australoid or Indo-Aryan tribe, but show probably Scytho-Iranian Stock.[17] *Guha* and *Datta* who studied the crania and skeletal remains from Yeleswaram, have come to the observation that these people were of more than medium height and their skulls indicated Scytho-Iranian affinity.[18] The crania from Adichanallur, according to *Guha*, compare well with the Sialkot skulls of North India and the Veddah crania of Ceylon.[19]

On the other hand, it has been pointed out that some items of the equipment as reported in the megaliths of South India, show contacts or connections with Central Asian tribes. For instance, according to *Rivett Carnac* the snaffle bits and stirrups show distinct central Asian parentrge, as according to him none of the wilder tribes of Indian peninsula used horses.[20]

Against these advocates of foreign origin, there is an overwhelming opinion to assign these to the Dravidians. For instance, *Soundararajan* states that megalithism in India might have arrived into India from more that one source, but in India burial as against cremation is essentially a non-Aryan trait.[21] *Subbarao* believes than megalithism was brought to the south from the north. He states that the Dravidians migrated to the south and the east from Rajasthan to South India through Central India and either put an end to or followed the chalcolithic communi-

ties. He sees no difference between the megalithic and the non-megalithic pottery but further emphasises the affinities of the megalithic builders and the Dravidians on the basis of the skeletal evidence from Adichanallur.[22] *Haimendorf* has assigned the megaliths to the Dravidians,[23] and *Sircar* also thinks that the Indian megalith builders were Dravidians. He, however, feels that the megalith builders came to India by the sea route, but after the fusion between the Aryans and Dravidian had taken place in Iran.[24] *Yazdani* advocates the migration of the megalithic builders from the Makran coast where similar megalithic monuments and Brauhi was current.[25] *Srinivasan*[26] points out that megalithism must have been in vogue in the south in pre-Sangam age, prior to the effective Aryan impact on South India, whereas on the basis of the study of skulls from Adichanallur, *Zuckerman* assigns the skulls to the Dravidians.[27] *Wheeler* advocates the existence of two cultural streams: one from the northern plains with iron and the other from Central India with the Black-and-red ware. These according to him got mingled in the Deccan in the 3rd century B.C.

In this medley of opinions, it may be sober to propose that the megaliths were not possibly the product of one people or race. As *Sarkar* has rightly pointed out, new traits and old funerary traditions mingled which gave rise to a complicated pattern of funerary repositories.[28] As has been rightly pointed out by *Allchin*.

"The South Indian graves appear as a developing complex with several streams of influence combining in them. First, some grave types are reminiscent of those of

Central Asia, Iran or the Caucasus, and could well represent traits brought from these areas by Indo-European speaking immigrants. NEXT, some appear as developments of the indigenous Neolithic-Chalcolithic burial customs of the Deccan. A THIRD series points to the influences from outside India, and comparable types may indicate the source of the influences......... Strictly speaking not all these examples are dated with any precision, and, therefore, they scarcely provide a firm basis for comparisons; but they suggest that during the first millenium B. C. India received them as influences by dint of maritime contacts with the Middle East. A FOURTH stream also cannot be excluded, being the possibility of local development in peninsular India itself; the stone alignments appear to belong to this class."[29]

Whatever be the culture currents underlying the homogeneous facade of megalithic remains, there is no doubt that these funerary monuments, and the basic homogeneity of the material equipment spread over very large region, bespeak a well-knit social organization having more or less similar ideas about the funerary cult. The iron tools and weapons imply a well knit group of specialised smiths conscious of the economic and other needs of the society. However, divergences in the orientation of the dead or multiple methods of disposal of the dead might imply either social gradations or sections in the community itself. The multiplicity of skeletons in one tomb might imply that particular tomb being a family vault and several skeletons might belong to a class or a unit of the community.

It is also remarkable to note that inspite of the megalithic folk coming in contact with other contemporary cultures in the Deccan, they were culturally so conservative that they refused to be dominated by these. What a pity that we hardly know anything certain about their beginning and end, and what a beauty that inspite of a rich material culture they have hardly left their name in any form on any of these !

Notes

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9 Jadigenahalli (IAR, 1956-57, PP. 34-35); Yeleswaram (*IAR,* 1963-64, P. 4); Pochampad (*IAR,* 1963-64, P. 1): Hashampet (*ARADN*, 1934-35, P. 10).
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12 Longhurst, *ARASM,* 1914-15, PP. 39-41.
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16 Deo, S. B. Op. Cit. P. 2.
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18 Cammaide, *Man.* XXX (1930), Art, No. 136.
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LECTURE III : ETHNIC AND CULTURAL EVALUATION

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Abbreviations :

AI : Ancient India, Bulletin of the Archaeological Survey of India.

ARADN : Annual Report, Archaeological Dept., Nizam's Dominion.

ARAM : Annual Report, Mysore Archaeological Department.

ARASI : Annual Report, Archaeological Survey of India.

ARASM : Annual Report, Archaeological Dept., Southern Circle, Madras.

ARASMC : Annual Report, Archaeological Survey of Madras and Coorg.

ARTC : Annual Report, of the Archaeological Dept., Travancore–Cochin State.

BDA : Bulletin of the Dept. of Anthropology.

BDCRI : Bulletin of the Deccan College Research Institute, Poona.

BIBLIOGRAPHY : Ramachandran A., A Bibliography on Indian Megaliths.

BIC : Bridget and F. R. Allchin : Birth of Indian Civilisation.

CS : Current Science.

IA : Indian Antiquary.

IAC : Indo-Asian Culture.

IAR : Indian Archaeology–A Review.

ISCA : Indian Science Congress Association.

JAI : Journal of the Anthropological Institute, London.

JAS : Journal of the Anthropological Society, Bombay.

JASB : Journal of the Asiatic Society, Bombay.

JBBRAS : Journal of the Bombay Branch of the Royal Asiatic Society.

JBU : Journal of the Bombay University.

JHAS : Journal of the Hyderabad Archaeological Society.

JMU : Journal of the Madras University.

JRAI : Journal of the Royal Anthropological Institute of Gt. Britain and Ireland.

JRAS : Journal of the Royal Asiatic Society of Gt. Britain and Ireland.

MI : Man in India.

MJLS : Madras Journal of Letters and Science.

PASB : Proceedings of the Asiatic Society of Bengal.

PISCA : Proceedings of the Indian Science Congress Association.

QJMS : Quarterly Journal of the Mythic Society, Bangalore.

RASI : Reports of the Archaeological Survey of India.

RASMP : Report on the Administration of the State Museum, Pudukottai.

Seminar Papers : Seminar Papers on the Problem of Megaliths in India, Banaras Hindu University, Varanasi, 1969.

TASSI ; Transactions of the Archaeological Society of South India.

TC : Tamil Culture.

TRIA : Transactions of the Royal Irish Academy.

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(a-area. dp.-decorative pattern. dt.-District. imp.-implement. lg.-language. mg. t.-Megalithic type. ob.-object. pl.-place. pp.-people. pt.-pottery. r-race. re.-region. ri.-river. st.-state. tq.-technique. tl.-tool.)

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ERRATA

PAGE	LINE	INCORRECT	CORRECT
1	3	iteerested	interested
3	3	Foot	Foote
6	21	Banerji	Banerjee
4	6	Yelesvaram	Yeleswaram
11	17	Heimendorf	Haimendorf
12	9	,,	,,
16	1	"floor—	"floor—"
16	7	layout	made
26	6	Chacolate	Chocolate
30	4-5	chromelchs	cromlechs

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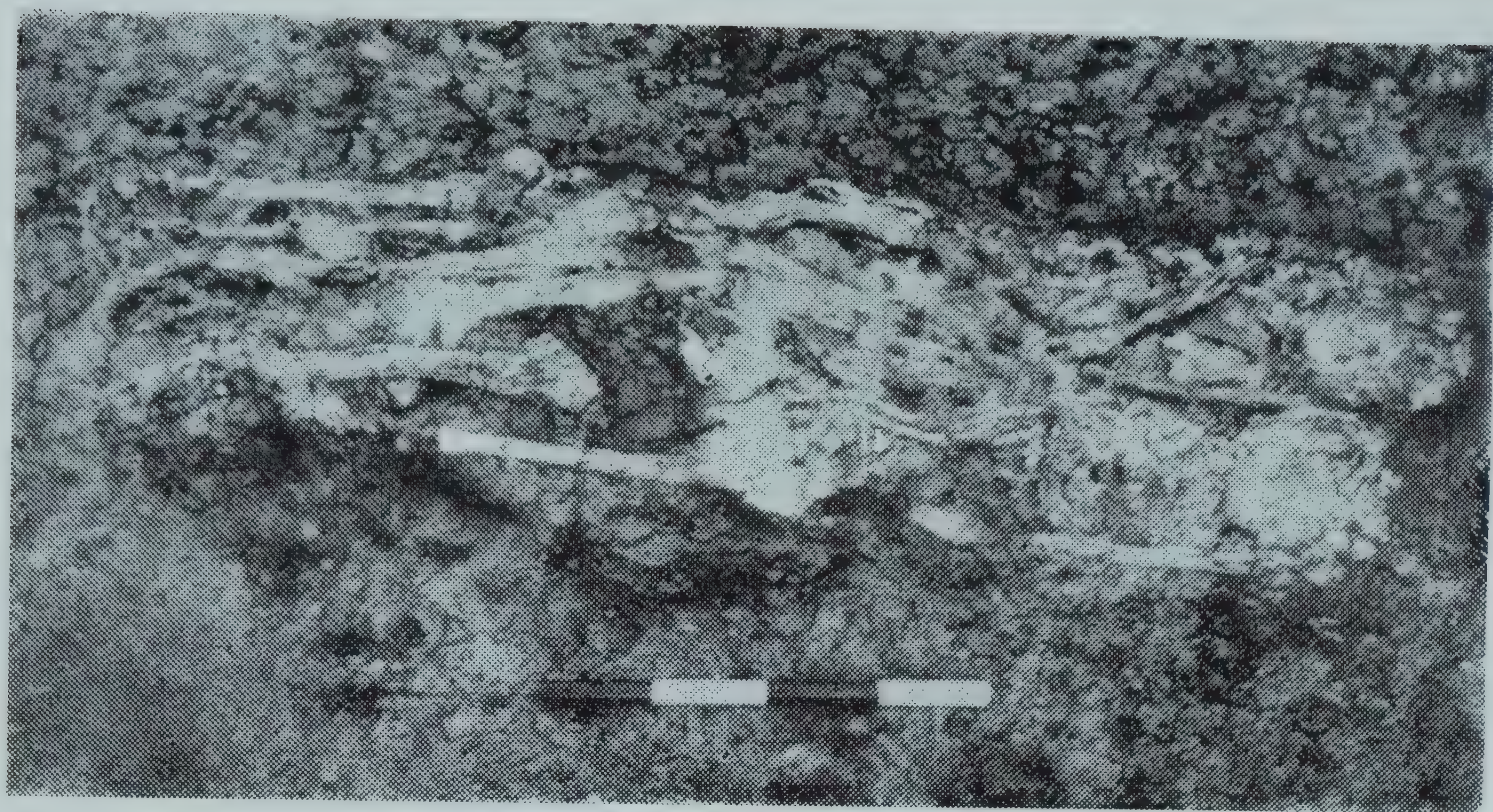


A



B

Pl. 1

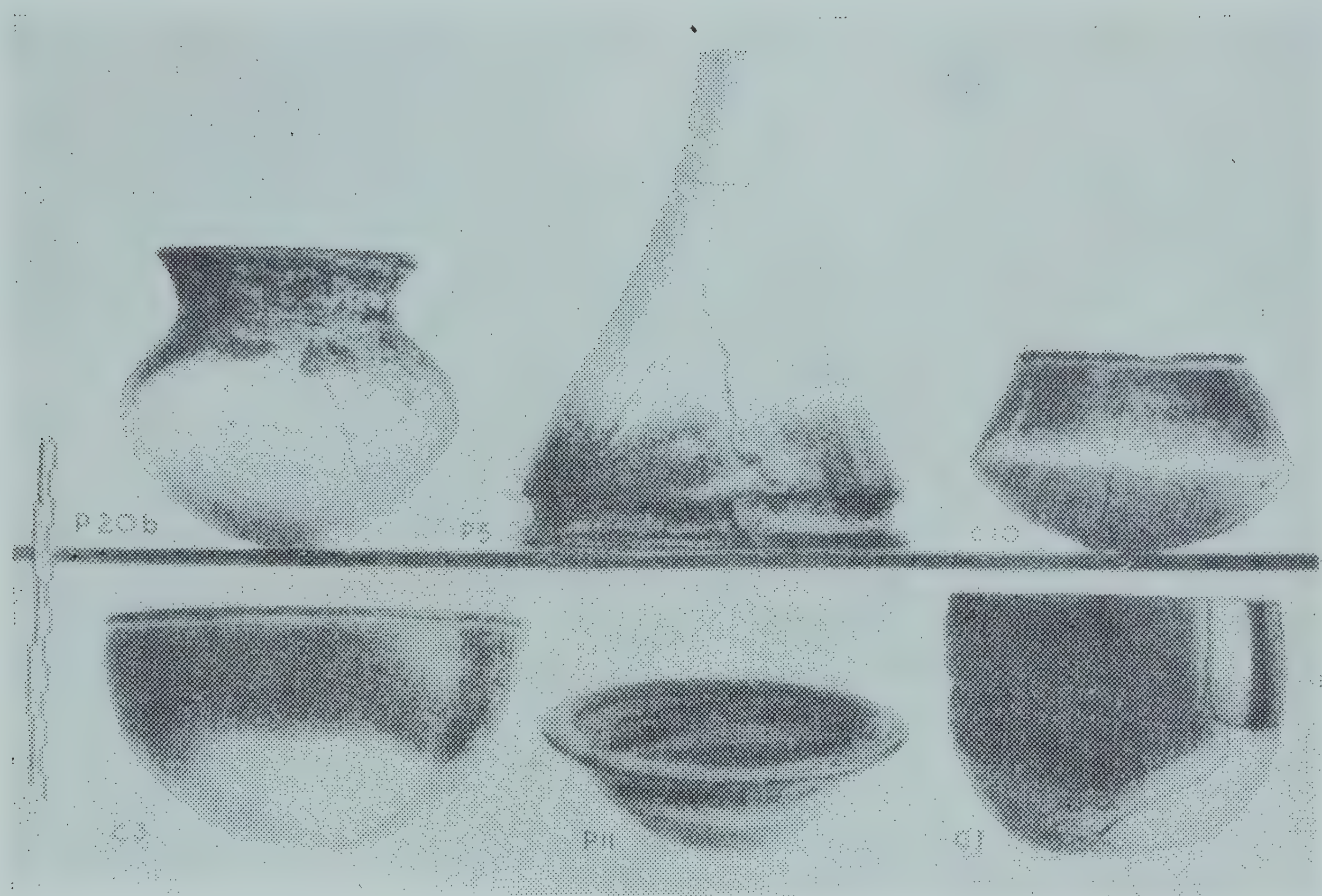


A



Pl. II

B



A

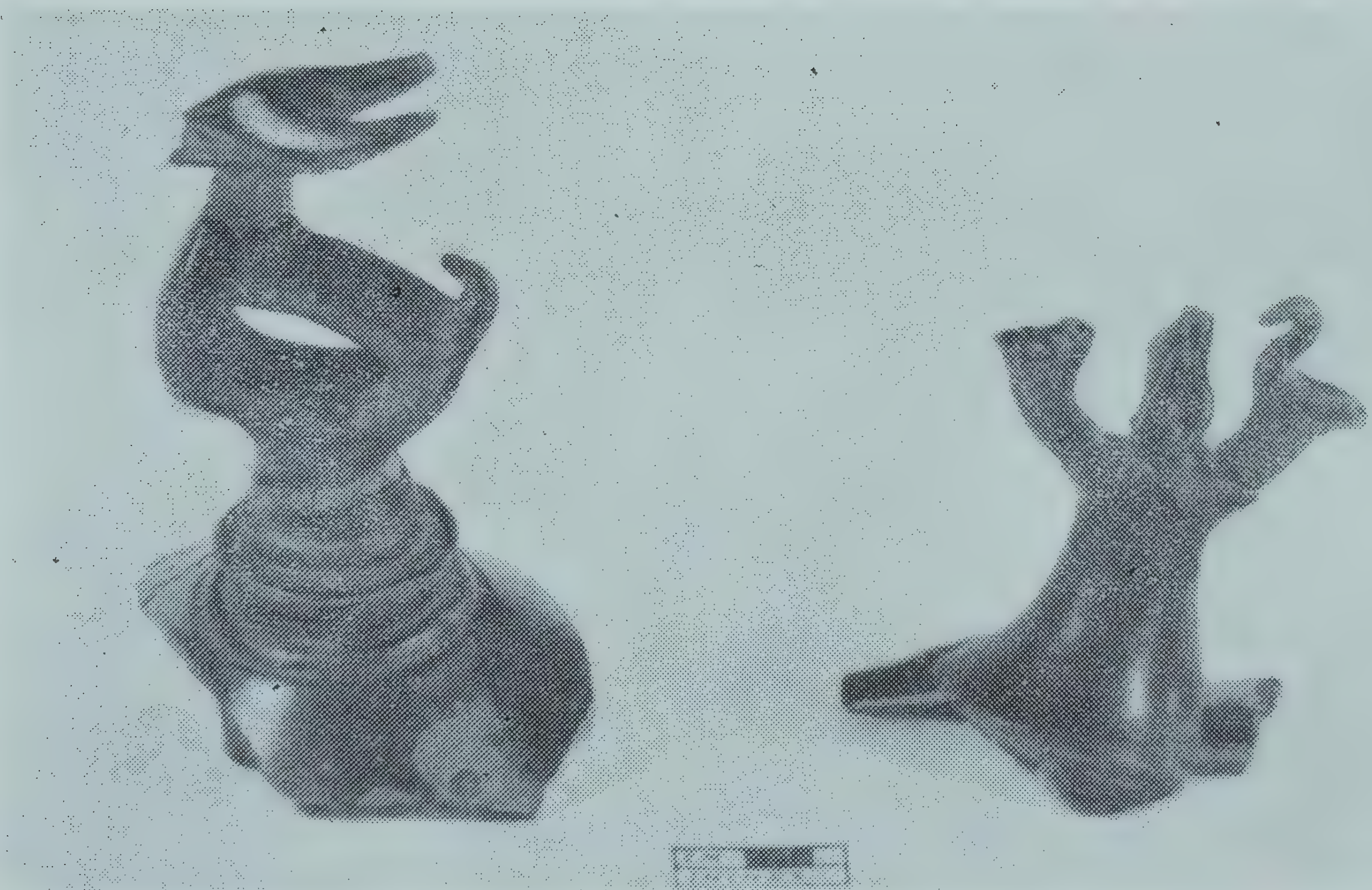


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Pl. III

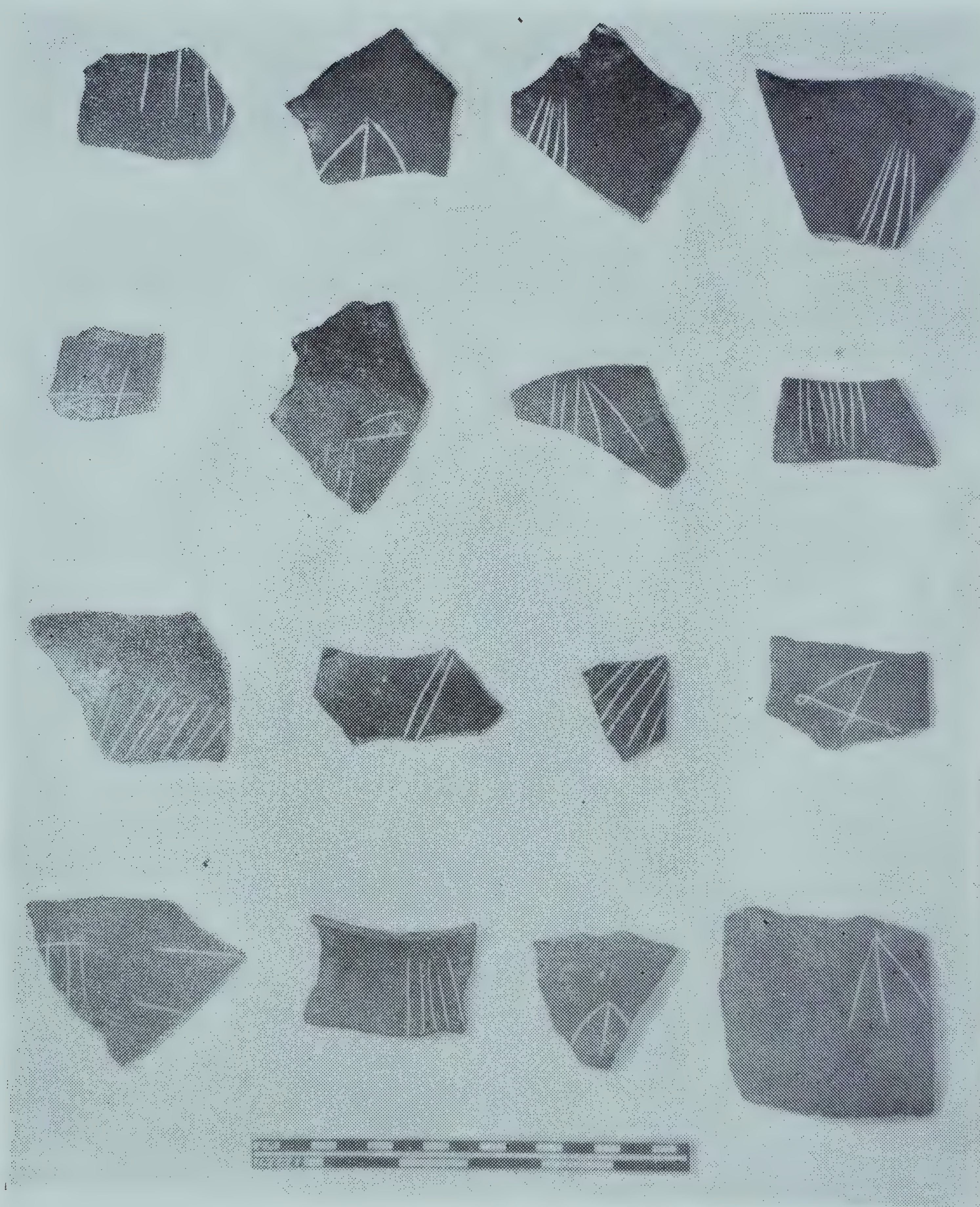


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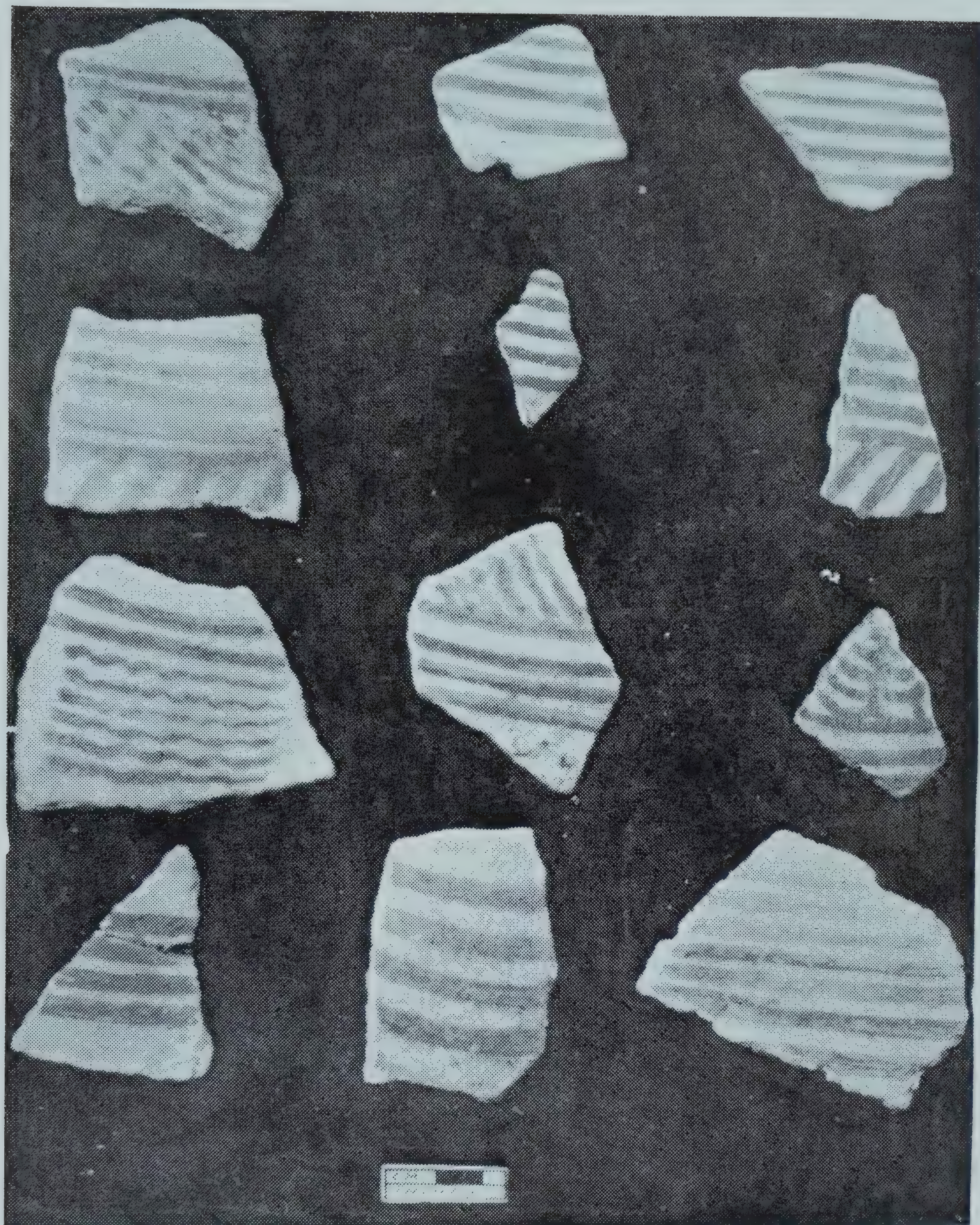


Pl. IV

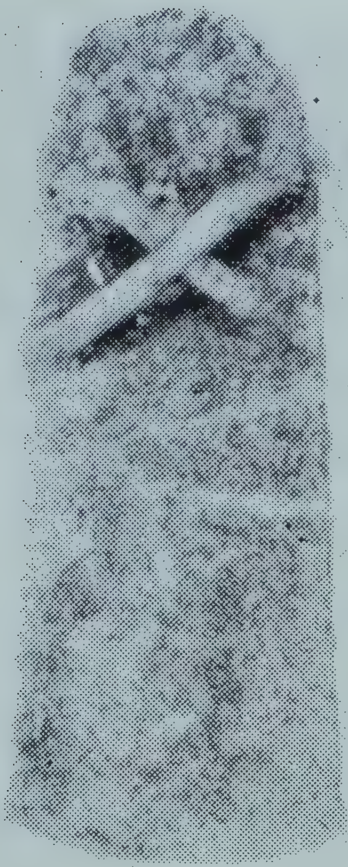
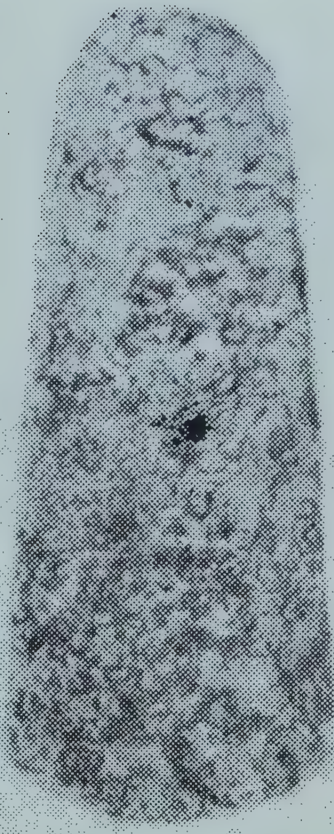
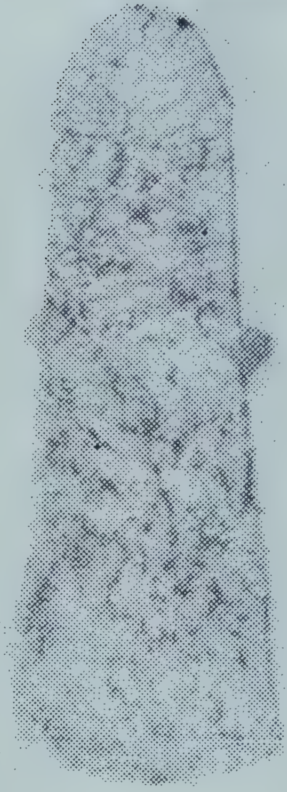
B

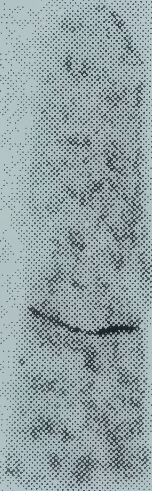


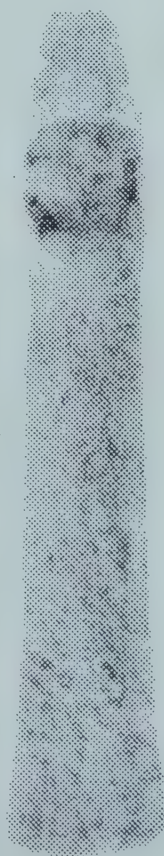
Pl. V



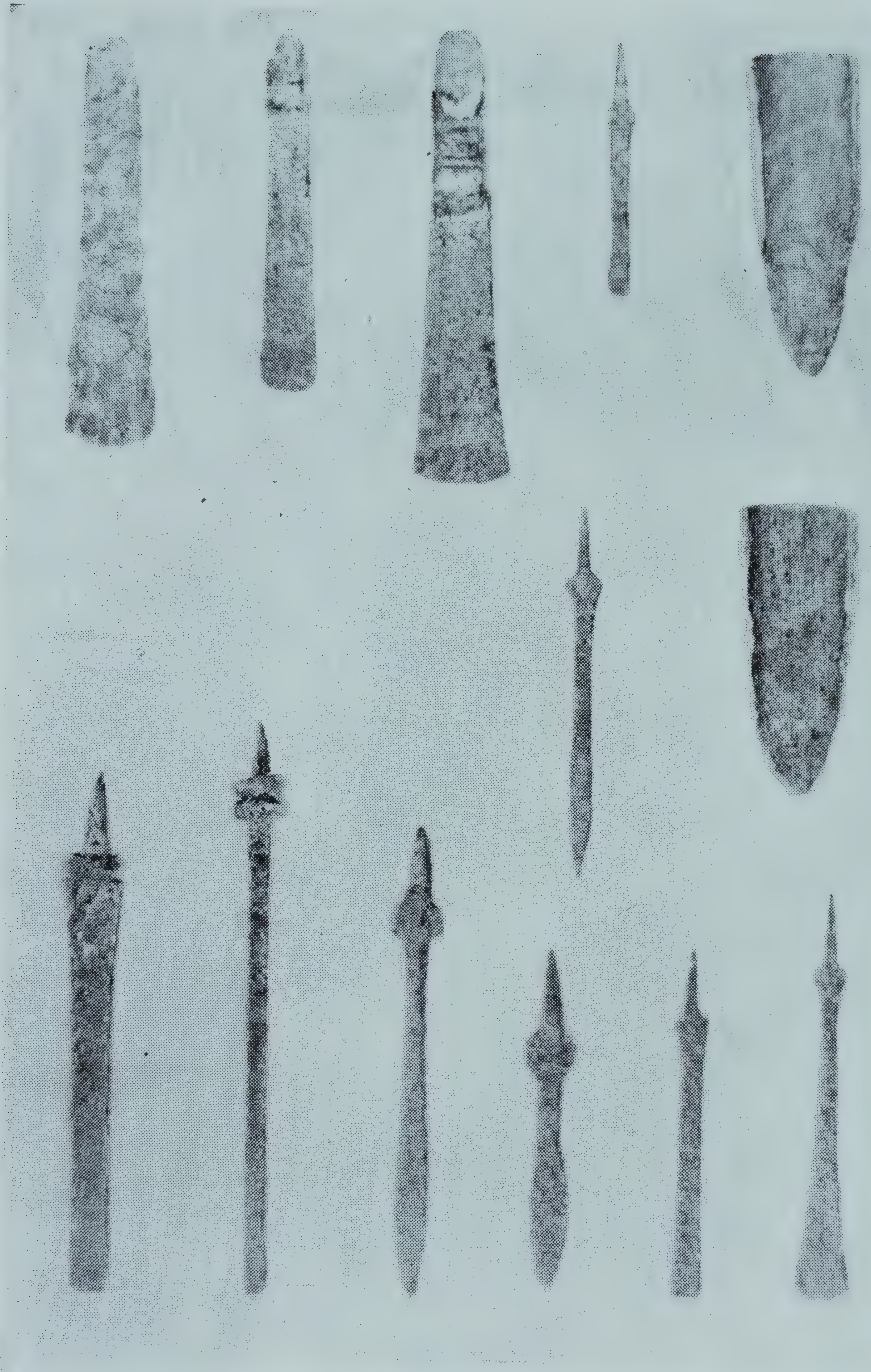
Pl. VI

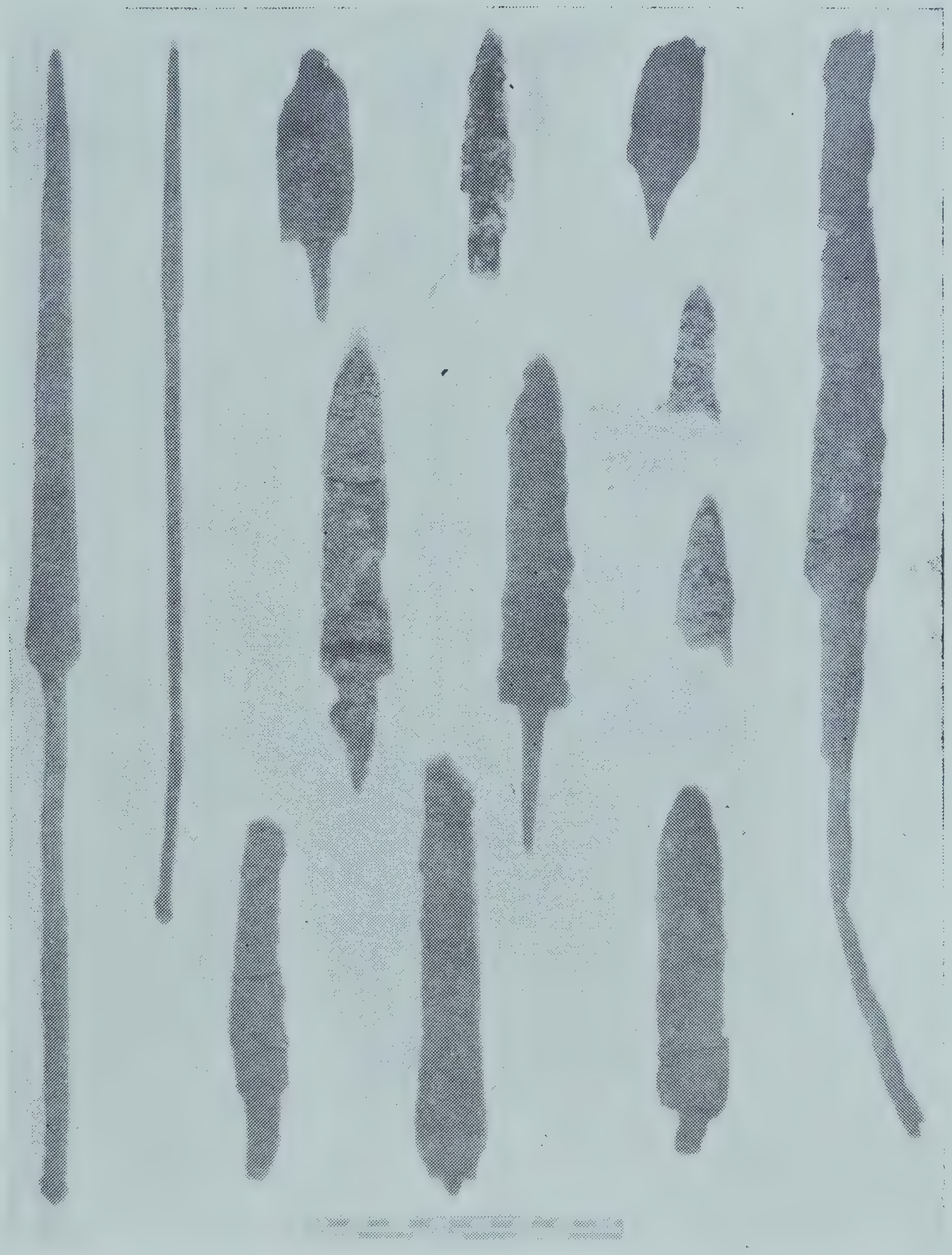




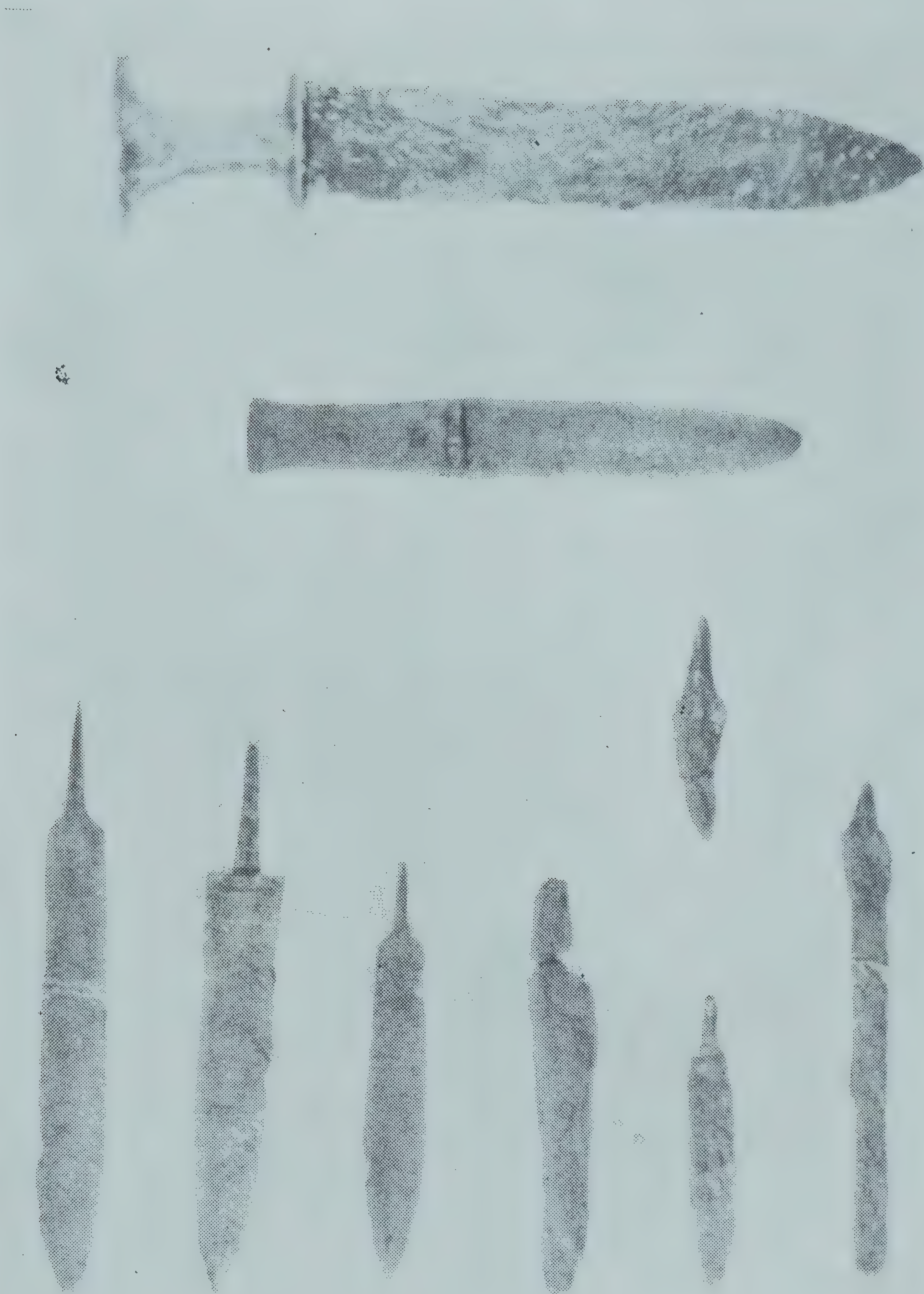
Pl. VII



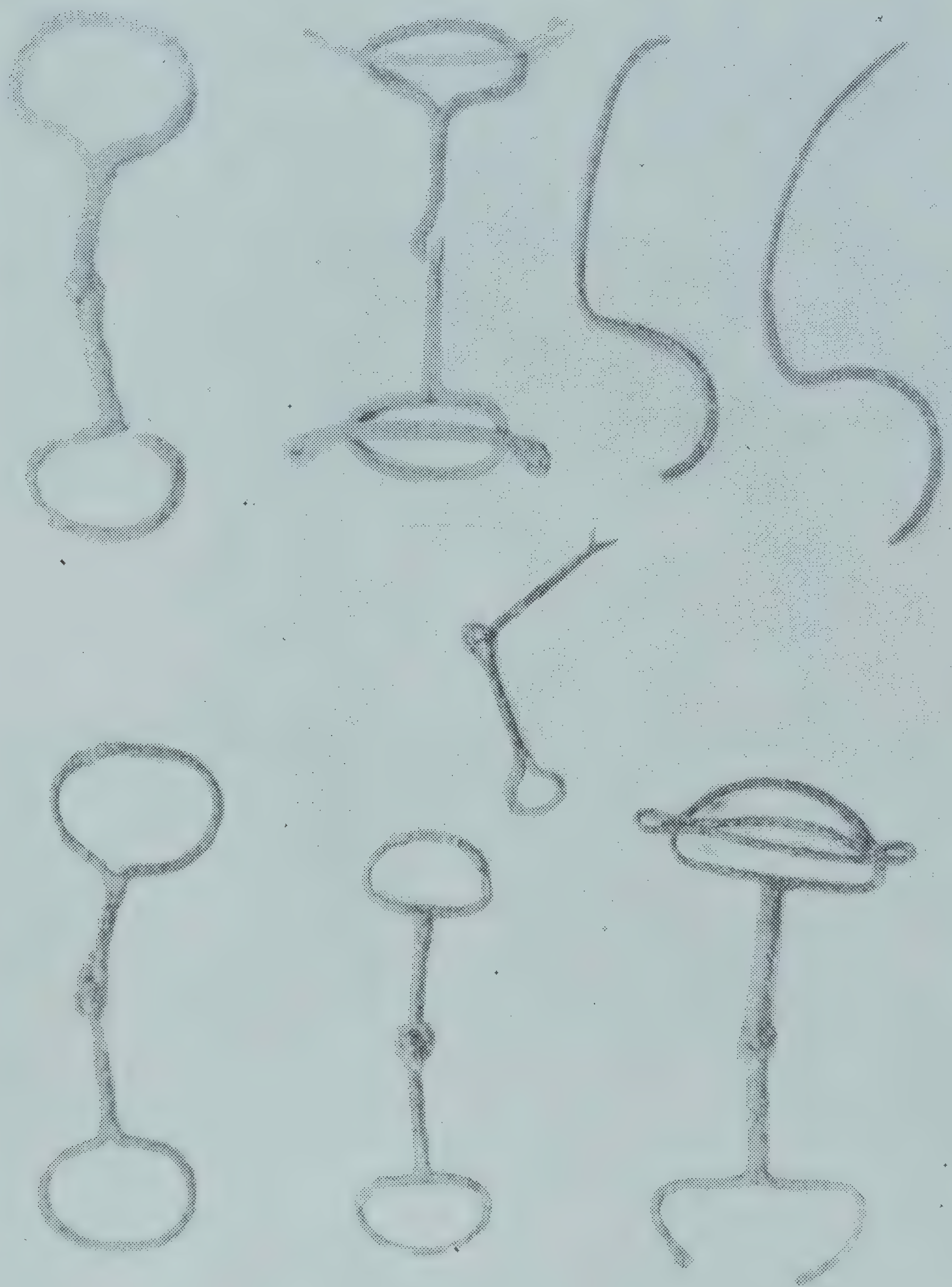
Pl. VIII



Pl. IX



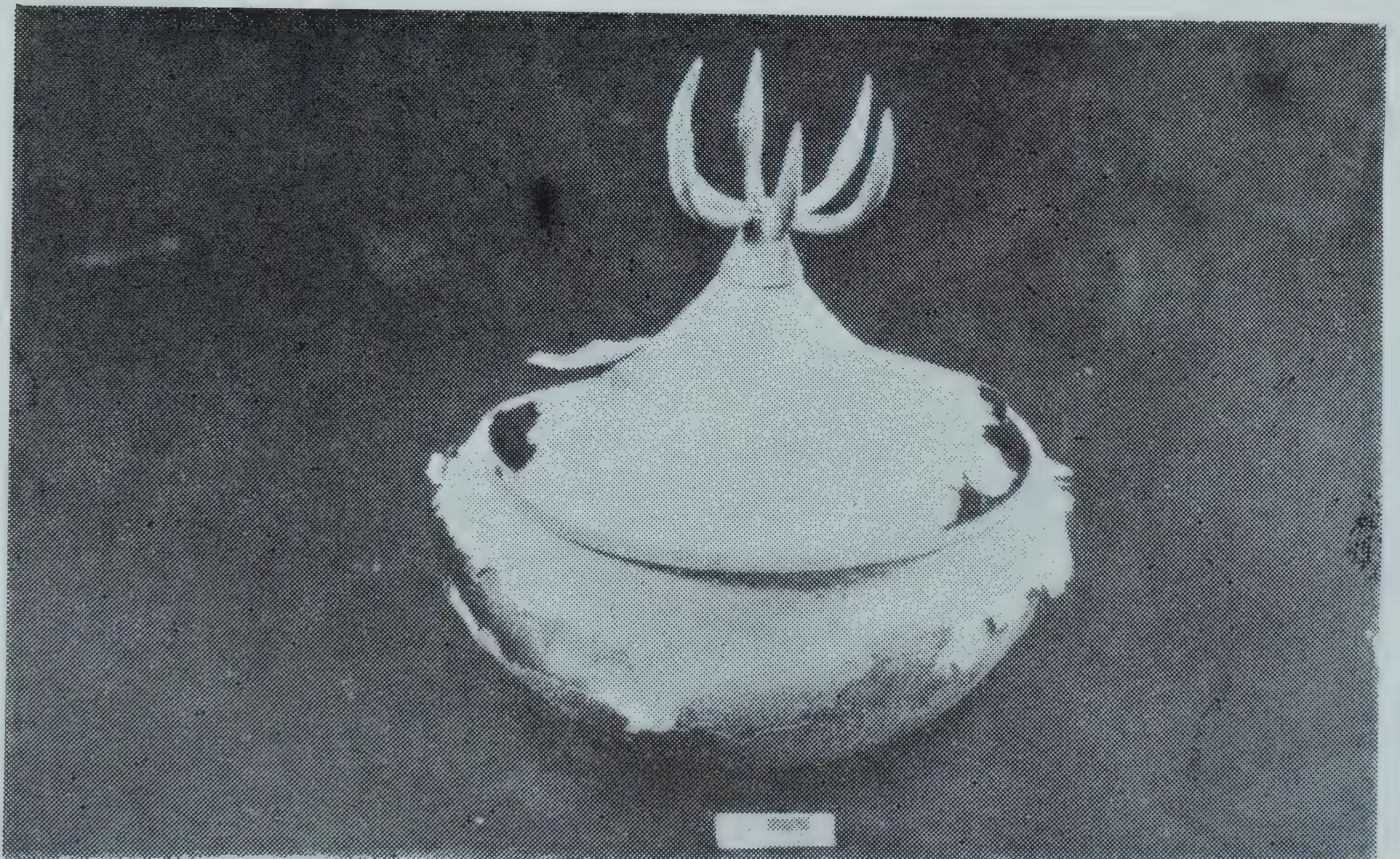
Pl. X



Pl. XI

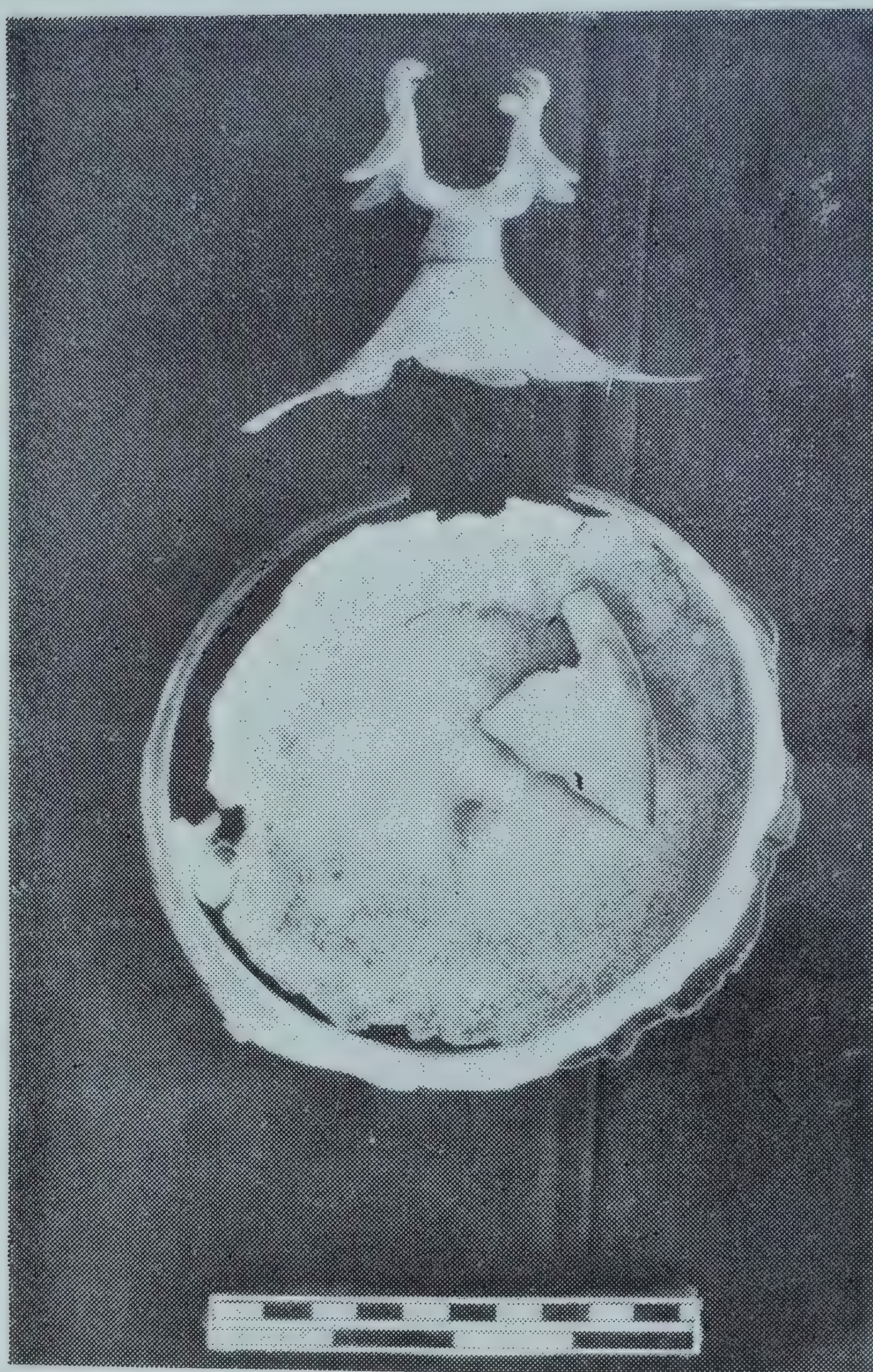


A

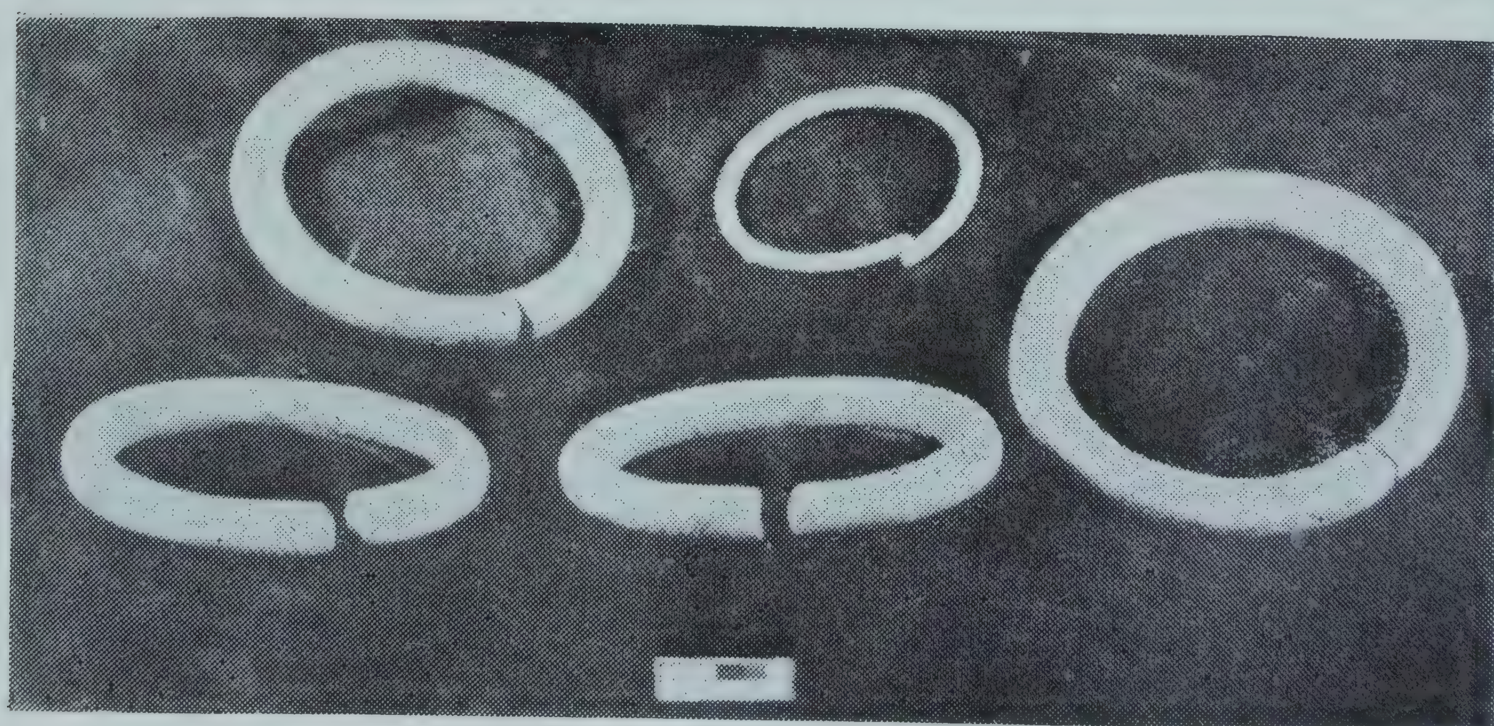


Pl. XII

B

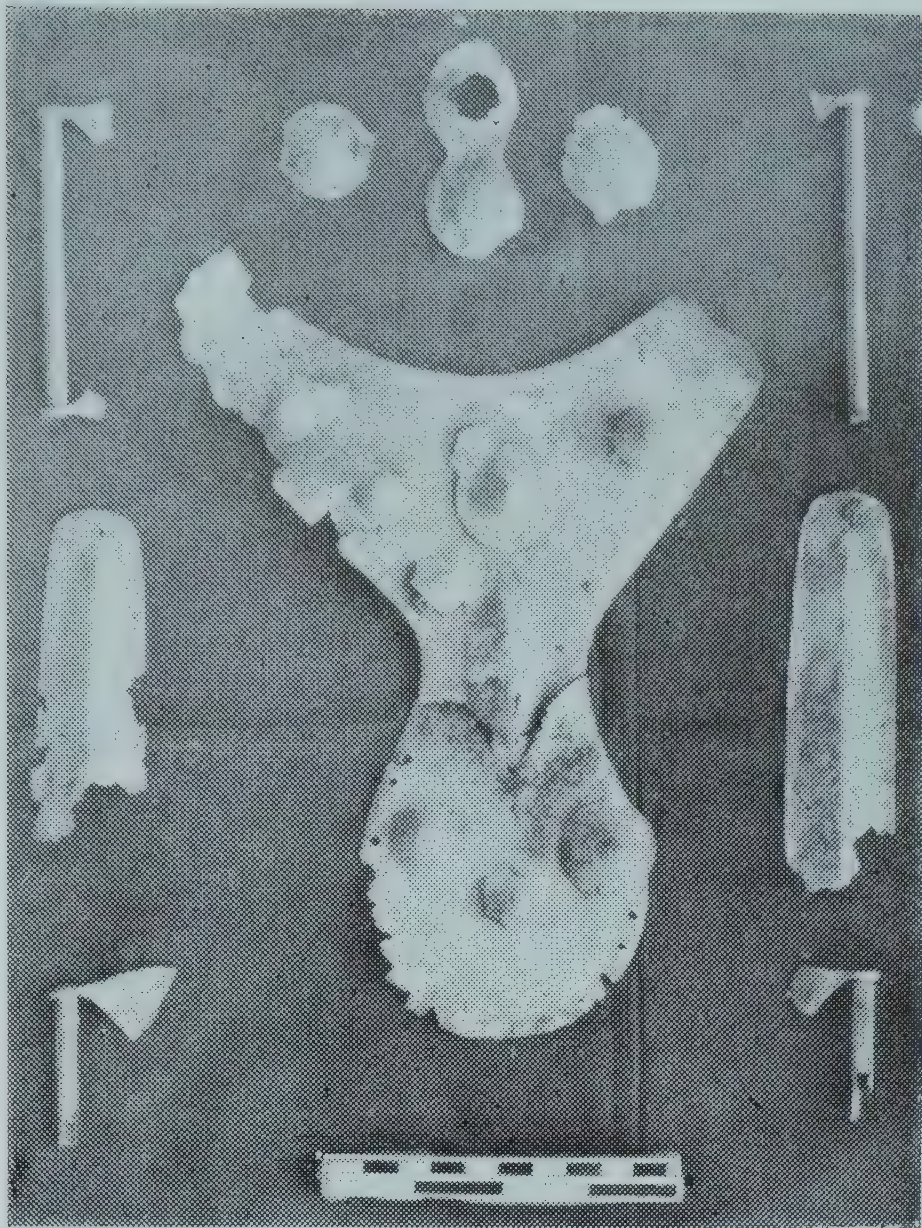


A

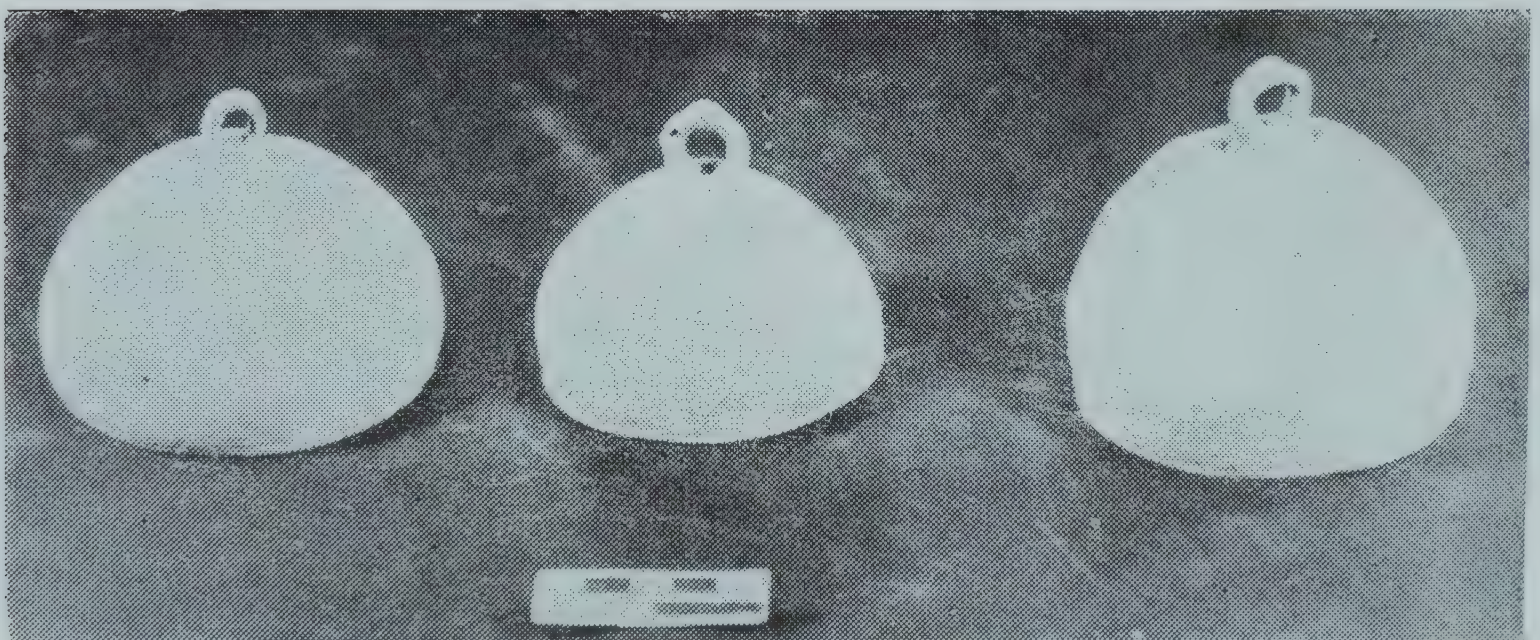


B

Pl. XIII

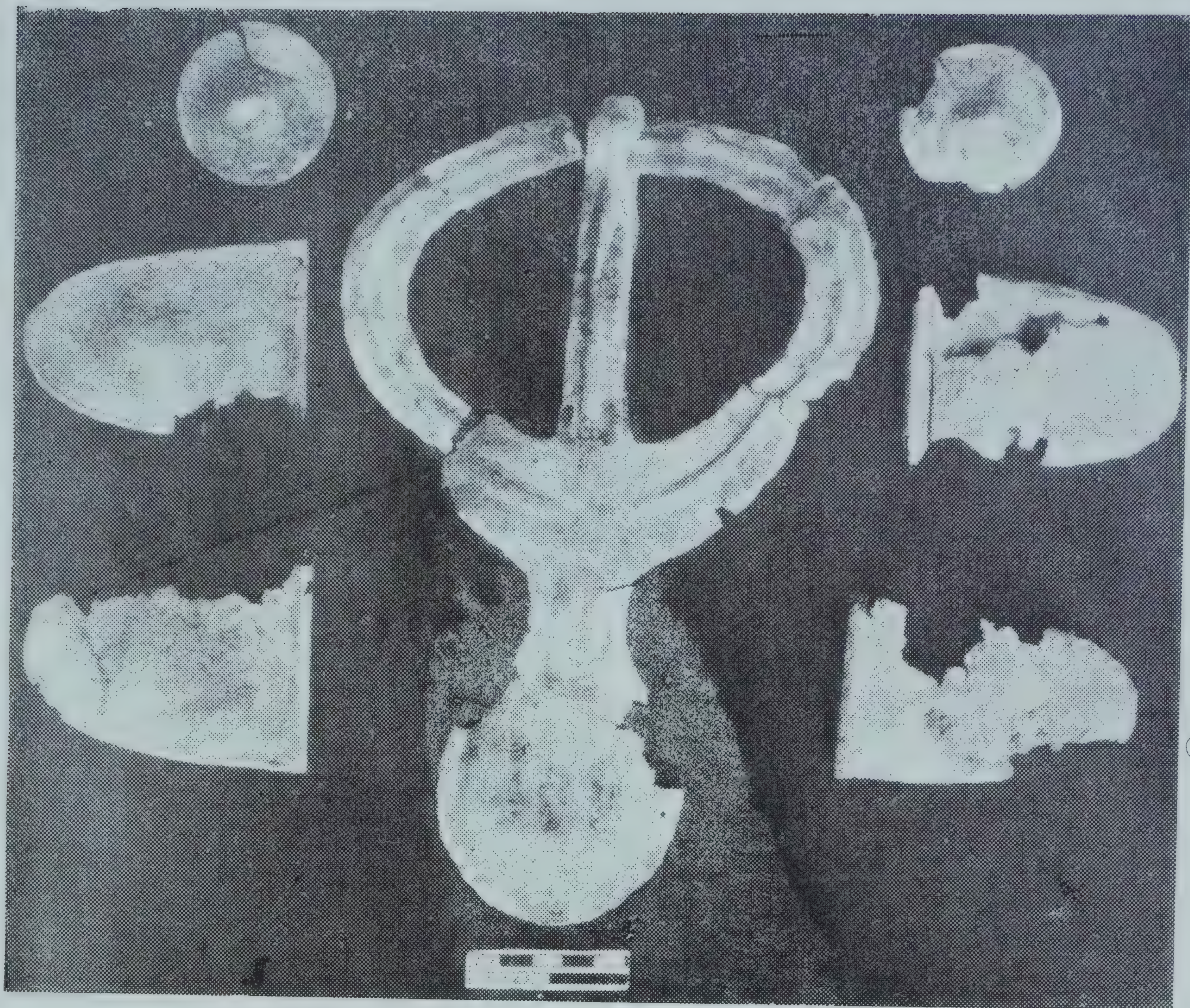


A

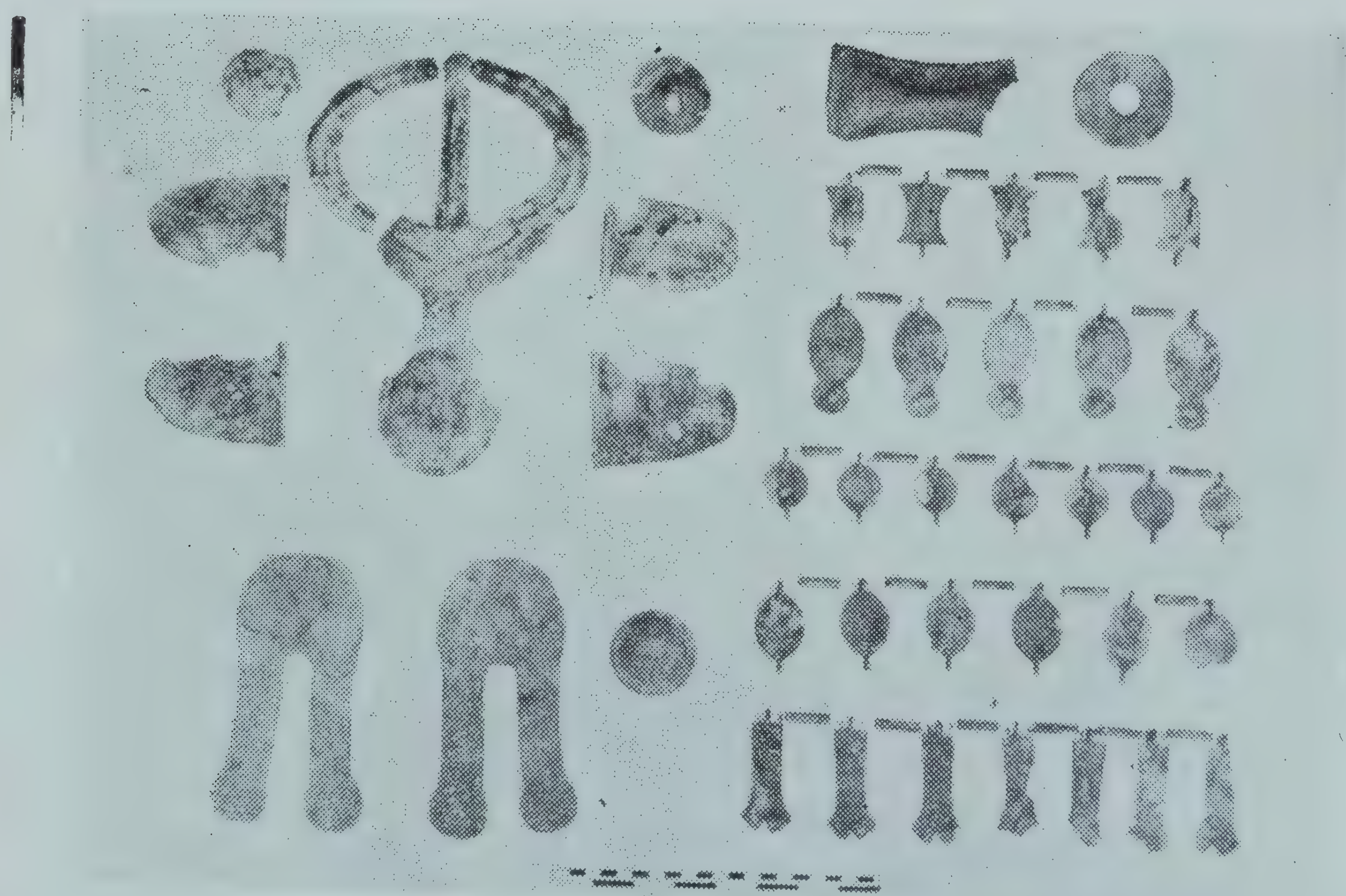


Pl. XIV

B

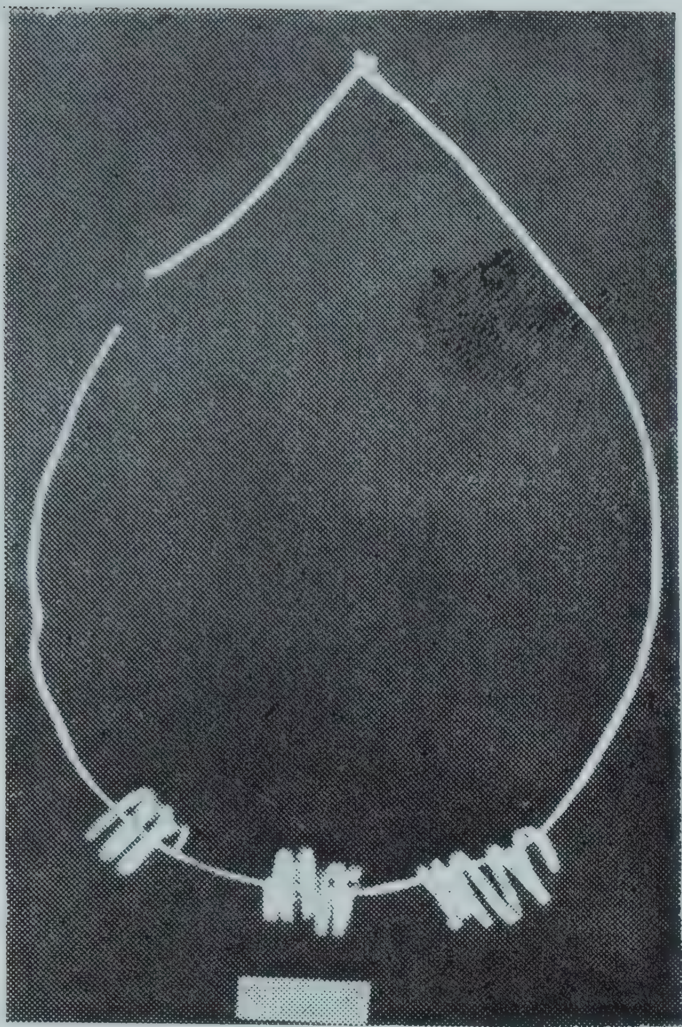


A



B

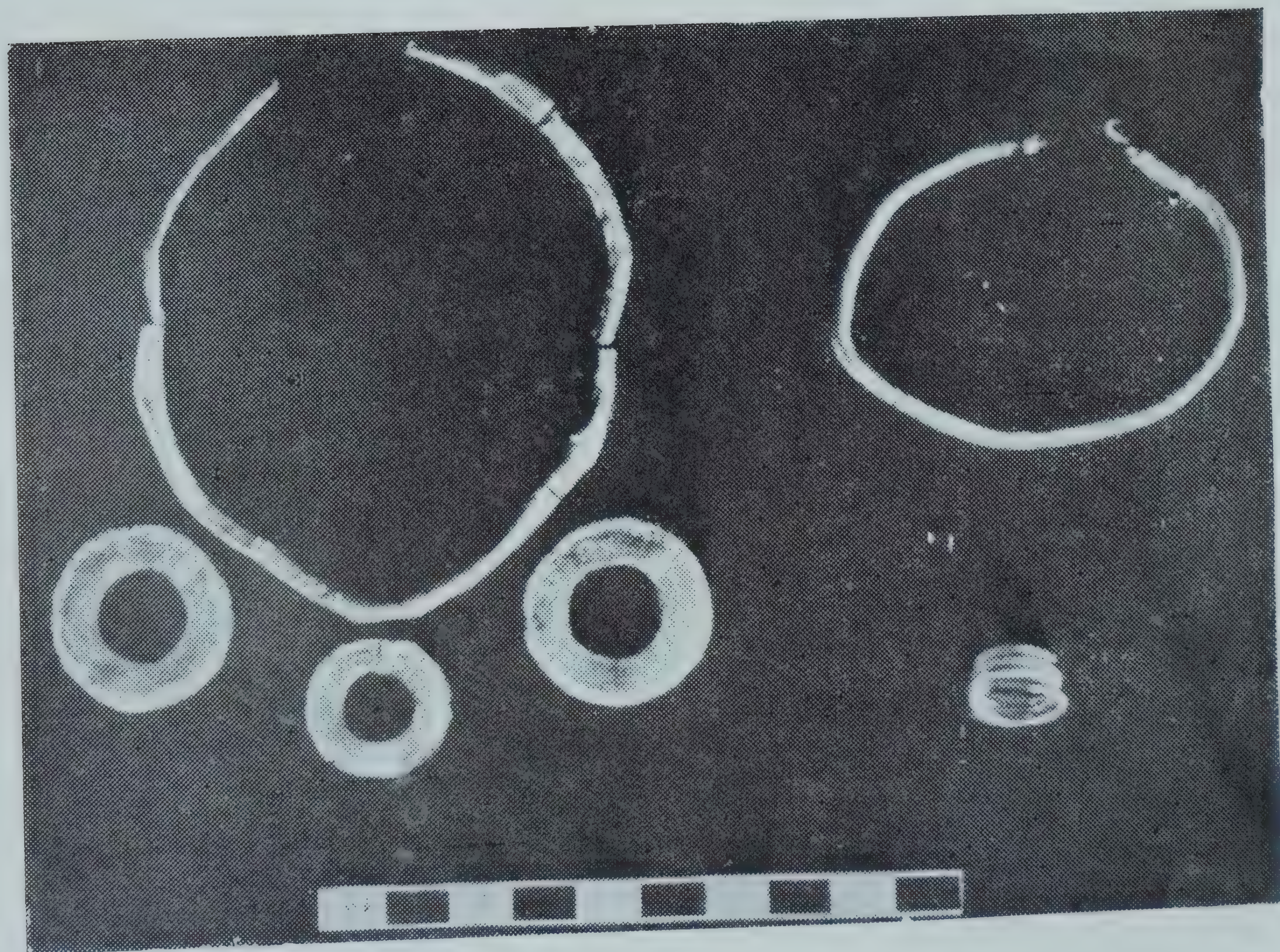
Pl. XV



A

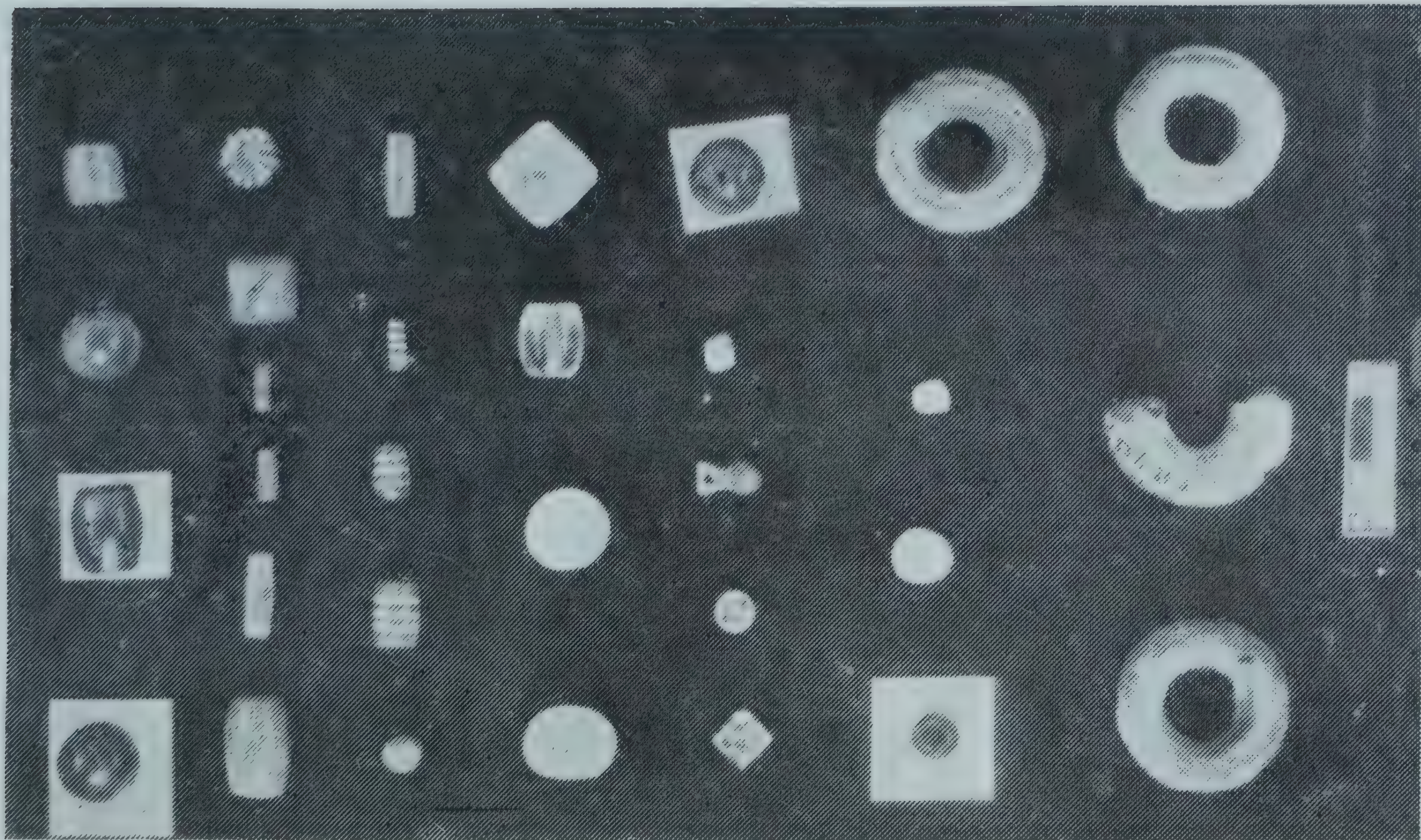


B



C

Pl. XVI

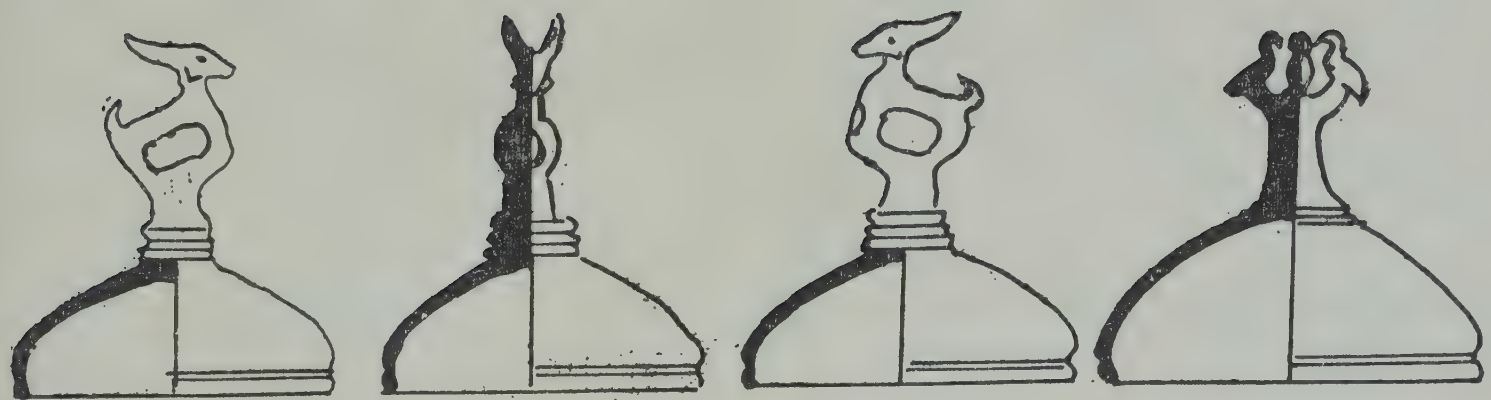


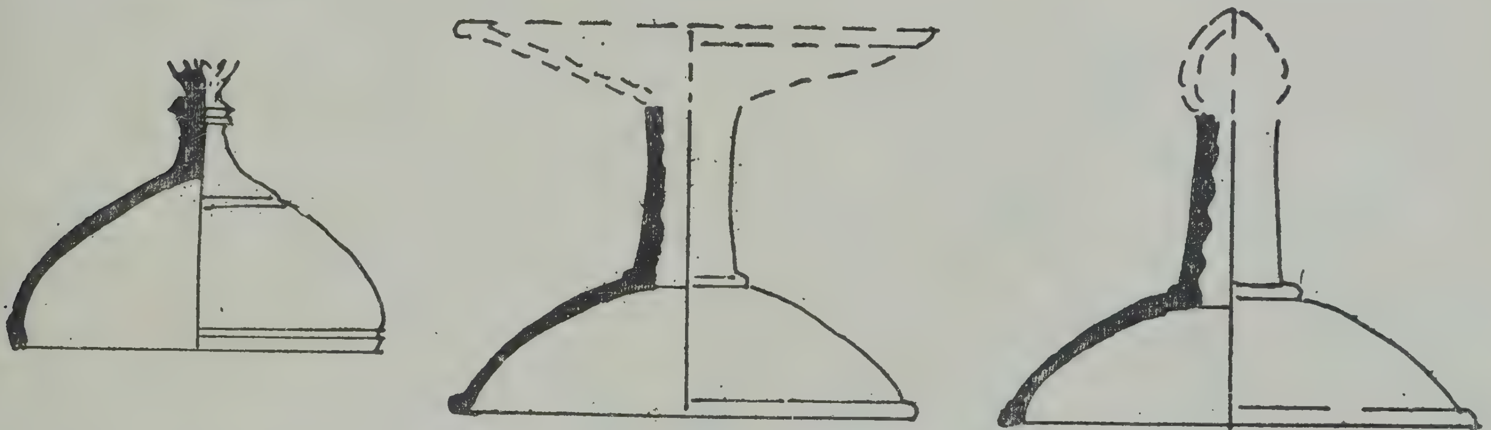
A



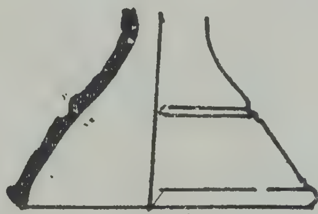
B

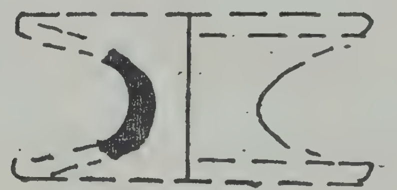
Pl. XVII

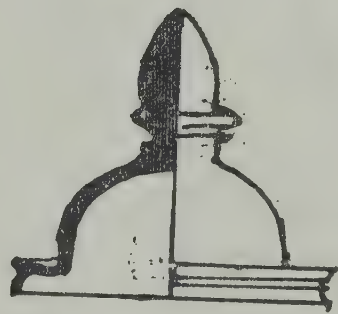


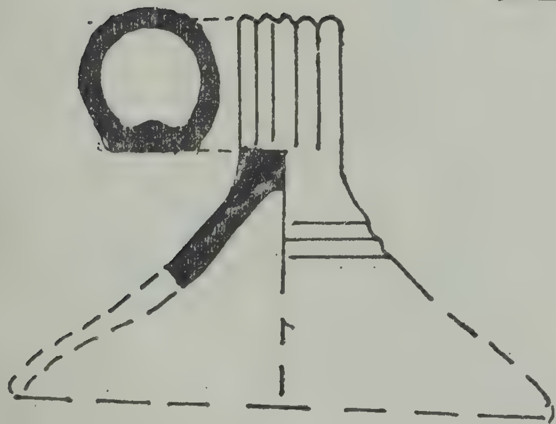












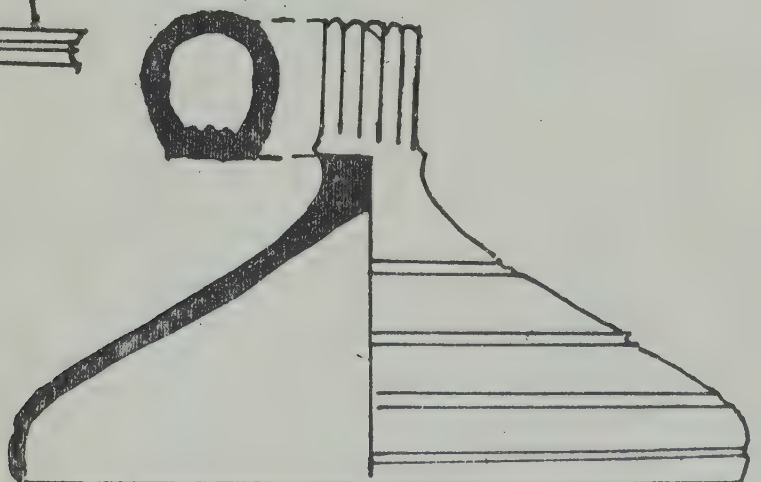


Fig. 2

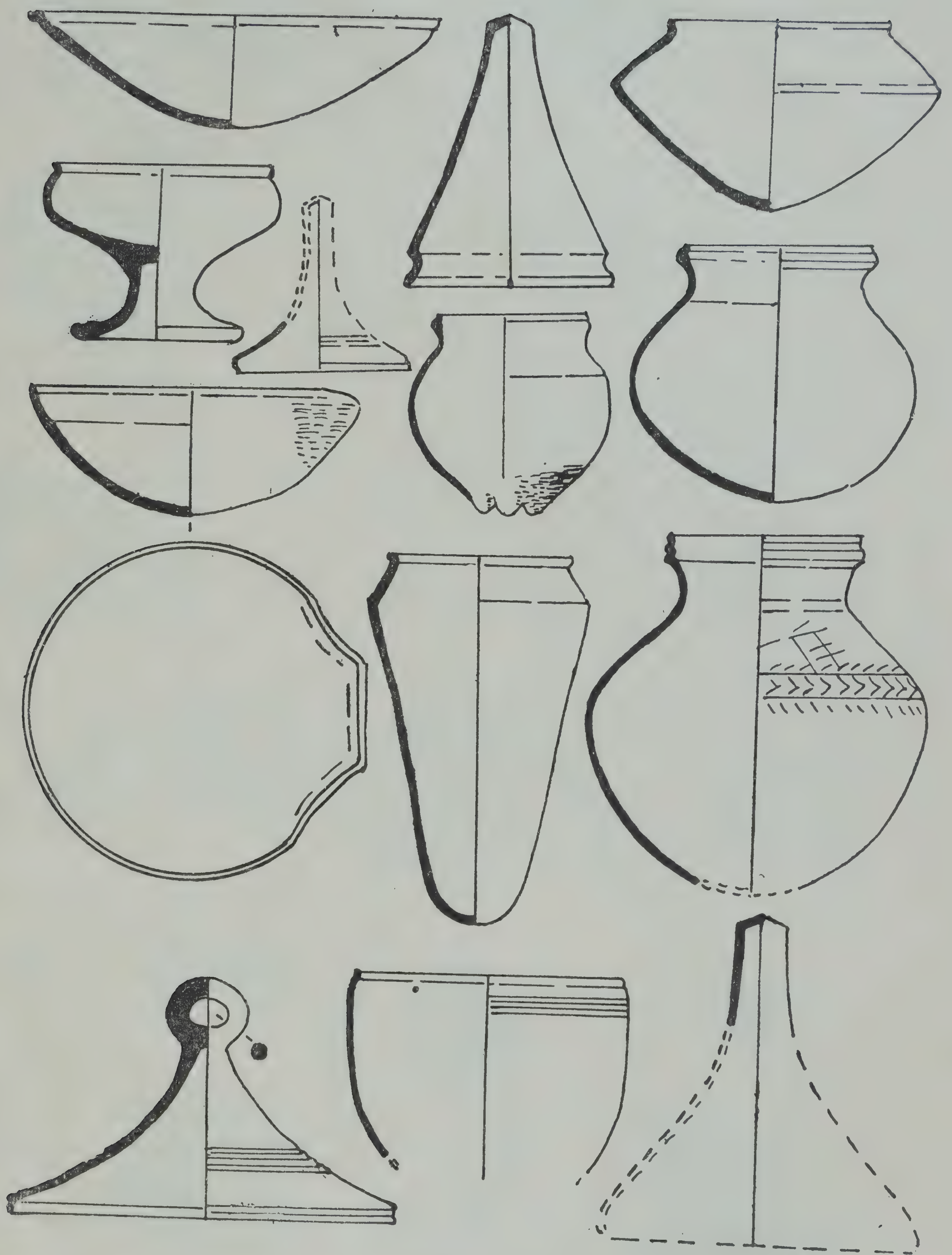


Fig. 3

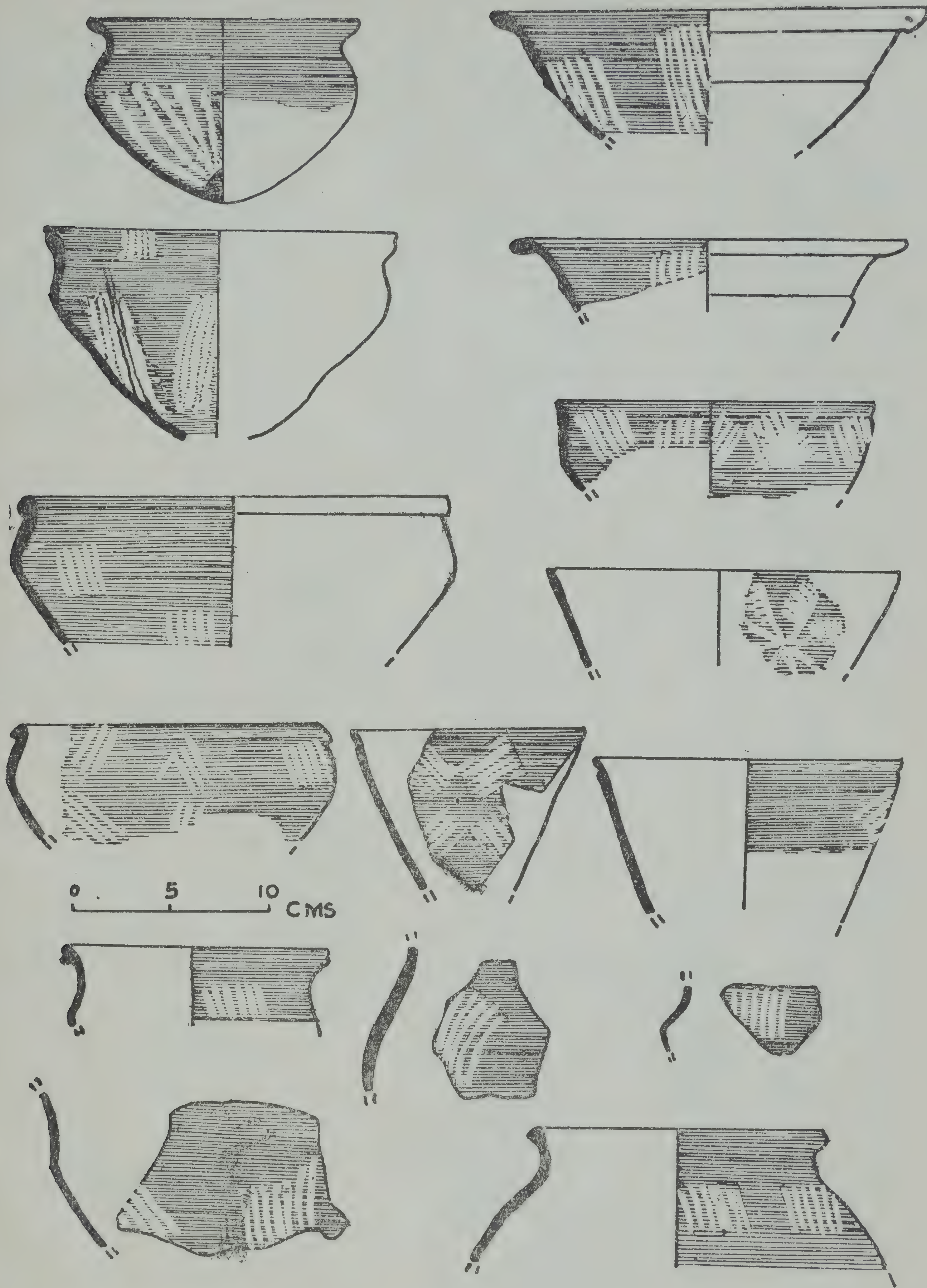


Fig. 4

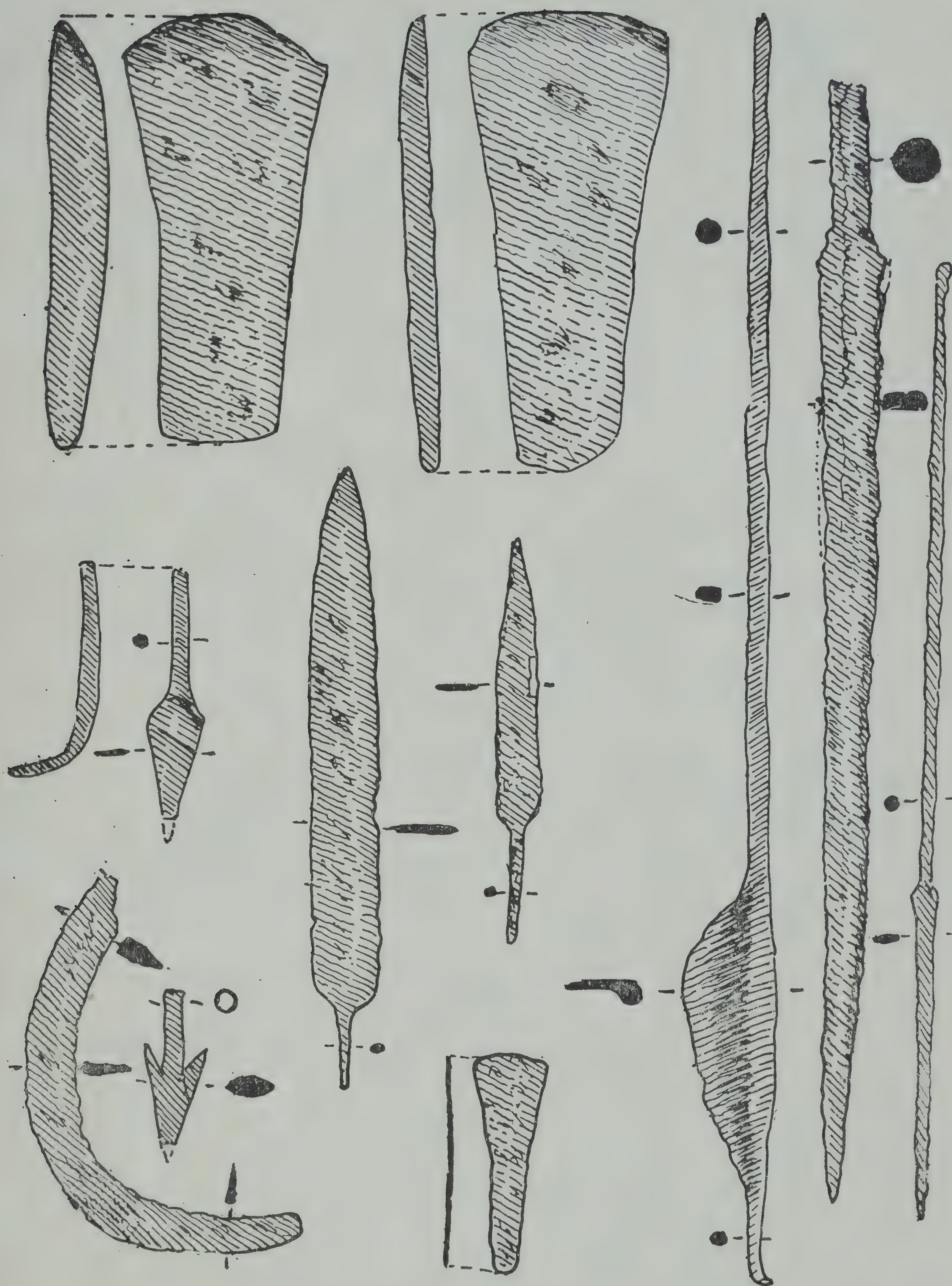


Fig. 5

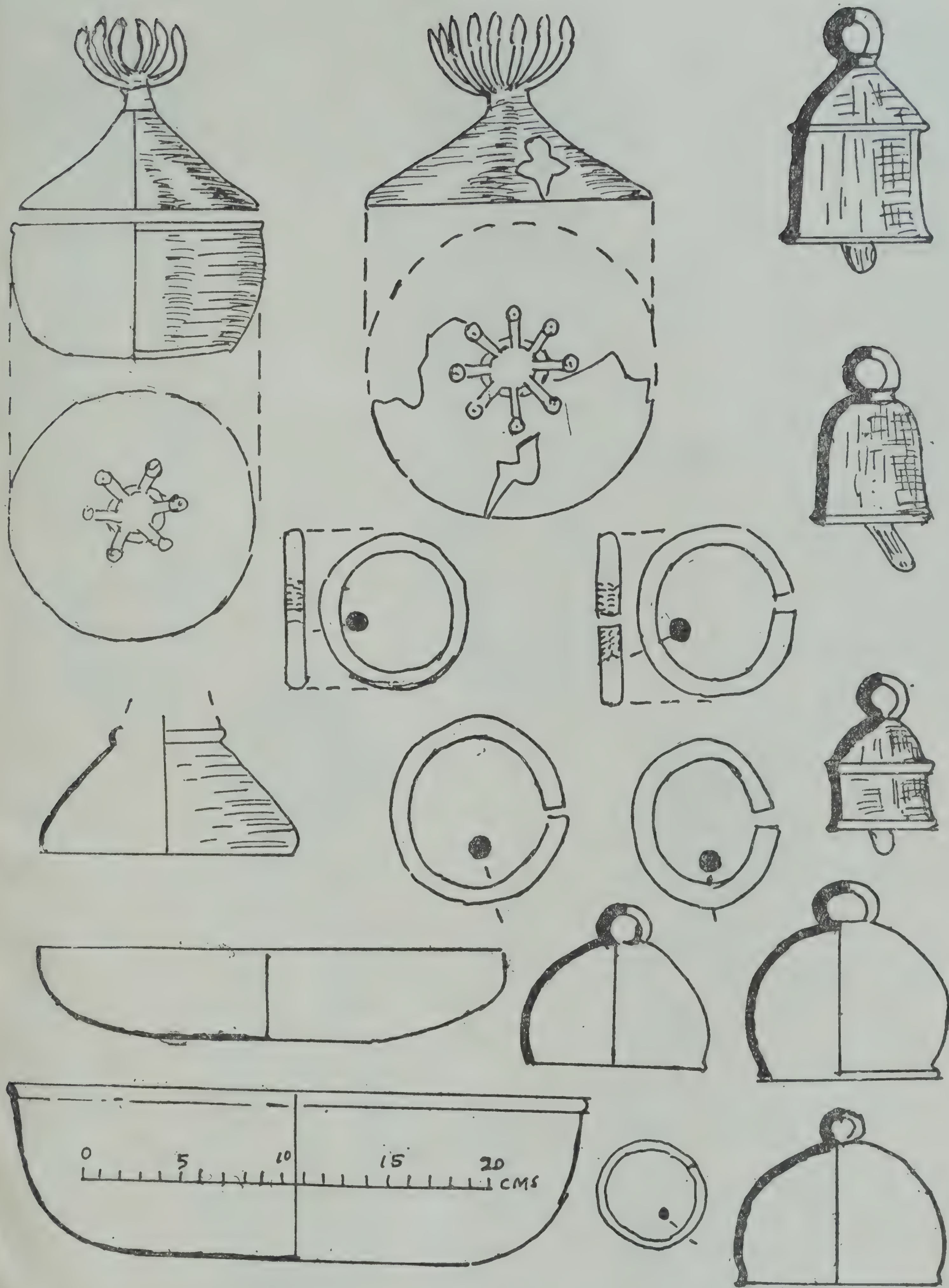


Fig. 6

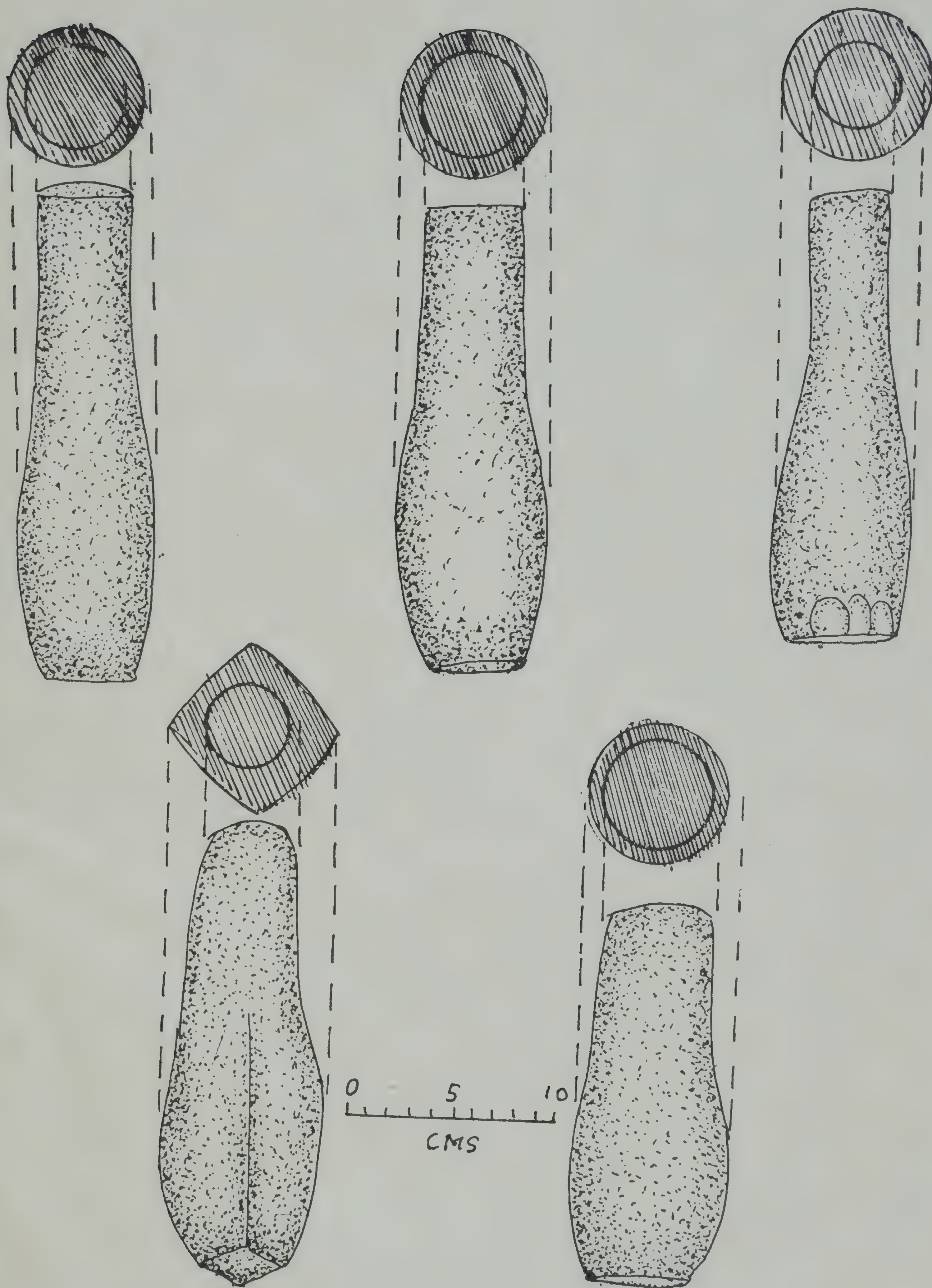


Fig. 7